International Economic Issues

APRIL - MAY 1989

SUBSIDIES AND THE TRADE LAWS: THE CANADA-U.S. DIMENSION
by Jean-François Bence and Murray G. Smith

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by

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The analysis of subsidy data was prepared in collaboration with Ira Kaminow of Hill and Knowlton (formerly Government Research Corporation), Washington, D.C. For the empirical analyses of subsidies, this report draws on several previous studies of which the principal authors are either A.R. Moroz, formerly with the Institute for Research on Public Policy or Ira Kaminow of Hill and Knowlton.

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EXECUTIVE SUMMARY

SUBSIDIES AND THE TRADE LAWS: THE CANADA-U.S. DIMENSION

Background

Subsidies and allegations of "unfair" trade practices are often contentious international issues. Developing rules regarding subsidies and countervailing and antidumping laws was a goal in the Canada-U.S. free trade negotiations, but it was not achieved because Canada sought greater security of access to the American market at the same time as the U.S. Congress was seeking to strengthen U.S. trade laws.

This goal remains on the bilateral agenda since the Free Trade Agreement mandates future negotiations on rules for subsidies and for the antidumping and countervailing duty laws. The negotiation of antidumping laws may have considerable economic significance, but also may be more amenable to resolution than the subsidy and countervailing duty issues which arouse greater political sensitivity in both countries. At least as an initial step in reconciling divergent Canadian and U.S. views on subsidies and "unfair" trade, it is useful to review recent experience with U.S. and Canadian countervailing cases in conjunction with available evidence on subsidies in both countries.

The Evidence

This study reviews, on as comparable a base as possible, the available evidence related to federal subsidy and assistance programs in place for the non-agricultural sectors of the economies of the United States and Canada. The assistance measures covered include grants, direct loans, loan guarantees and duty remission programs. Data are also incorporated on tax expenditures and other indirect assistance measures, but on a less comprehensive basis. Some of the subsidy and assistance measures dealt with would not be regarded as countervailable subsidies at present under either U.S. or Canadian countervailing duty laws.

U.S. non-agricultural countervailing duty cases against Canada provide some selective but in-depth evidence on the availability of subsidies from all levels of government in Canada. For example, Canada's various regional development programs have been consistently determined by the United States to be countervailable subsidies since the Tokyo Round subsidies code was implemented in U.S. trade law. However, the level of such subsidies in each instance has been determined to be less than 0.5 percent -- the de minimis level under U.S. trade law. Even in the controversial second Softwood Lumber case, the Canadian subsidies would have been de minimis--as they were in the first case--but for the inclusion of the controversial stumpage subsidy.

This study indicates that in 1984, excluding agriculture, only a few industries in both countries had, at the federal level, a subsidy rate which was large enough to have a significant effect on trade. Explicit federal subsidies in the industrial and services sectors taken together averaged in 1984 about 1 percent in Canada and 0.5 percent in the United States. Out of 83 industries, 5 in Canada and 3 in the United States had subsidy rates greater than 5 percent, while an additional 6 industries in Canada and 10 in the United States had subsidy rates less than 5 percent but greater than 1 percent. Moreover, the industries with the highest measured subsidy rate in each country - forestry in the United States and fisheries in Canada - share some of the attributes of the agricultural sector.

Although comparable data are not available after 1984, both federal governments have acted to reduce non-agricultural subsidies in a number of major industries. In Canada, the complicated web of energy-sector price controls and subsidies under the National Energy Program has been completely dismantled and in the United States industrial development bonds have been curtailed through tax reform. Furthermore, among the remaining heavily subsidized industries, some had no output internationally traded and for others, the result of the subsidies was more to lower imports than to increase exports.

The study concludes that, in both countries, explicit federal subsidies have only a modest impact on non-agricultural trade between Canada and the United States. Thus, one would not expect a spate of successful countervailing duty actions in the industrial sector, leading to the imposition of substantial countervailing duties on significant amounts of bilateral trade. However, the risk of harassing actions continues and may become a political problem.

Before definitive conclusions can be reached, however, further work is required on the subsidy programs of provincial and state governments as well as on certain indirect subsidies (e.g. stumpage or defence procurement) that are often contentious between Canada and the United States. For example, if defence procurement were included as a subsidy measure, then the average U.S. federal non-agricultural subsidy rate would amount to roughly 2 percent and would be greater than the equivalent Canadian average subsidy rate including defence procurement.

The Future Agenda

The subsidy and countervailing duty issues that arise in agricultural trade are quite different from those that arise in bilateral trade in the industrial sector. Data compiled by the Organization for Economic Cooperation and Development indicate significant subsidies in a number of agricultural commodity sectors in both countries. In the Canada-U.S. free trade negotiations, it was agreed that export subsidies would be eliminated from bilateral trade in agricultural products. However, because of the subsidies provided to, and restrictions imposed on, agricultural trade by third countries, it was further agreed that domestic agricultural subsidies, and export subsidies into third markets for agricultural

products, could only be negotiated multilaterally in the Uruguay Round of GATT negotiations. Since over half of U.S. countervailing duty cases against Canadian exports, and the only Canadian countervailing case against U.S. exports, involved agricultural products, the outcome of the Uruguay Round multilateral negotiations on agriculture will also have important implications for Canada-U.S. trade relations.

Under the Free Trade Agreement, both countries retain all rights and obligations under GATT rules including the Tokyo Round subsidies code. Thus, developments in the Uruguay Round GATT negotiations will shape the bilateral agenda for negotiations on subsidies and unfair trade. However, since the subsidy levels available to most industries at the federal level appear to be relatively low in both countries, this study suggests that it should be more feasible to develop common bilateral approaches to subsidies and countervailing duties in the industrial sector, than is the case in the agricultural sector.

RÉSUMÉ

LES SUBVENTIONS ET LES LOIS COMERCIALES: LA DIMENSION CANADA-ÉTATS-UNIS

Historique

Les subventions et les allégations de pratiques commerciales "déloyales" portent souvent à controverse sur le plan international. L'un des objectifs des négociations canado-américaines sur le libre-échange était la mise au point de règles concernant les pratiques commerciales "déloyales". Cet objectif n'a toutefois pas été atteint car le Canada cherchait à obtenir une meilleure sécurité d'accès au marché américain alors que le Congrès américain cherchait par la même occasion à renforcer les lois commerciales américaines.

Cet objectif reste à l'ordre du jour bilatéral étant donné que l'Accord de libre-échange prévoit d'autres négociations sur les règles relatives aux subventions ainsi que sur la législation touchant les droits antidumping et les droits compensateurs. La négociation sur les lois antidumping peut avoir une incidence économique considérable, mais cette question peut néanmoins être résolue plus facilement que celle des subventions et des droits compensateurs, lesquels sont bien plus sensibles politiquement dans les deux pays. Pour concilier les points de vue divergents du Canada et des Etats-Unis concernant les subventions et les pratiques commerciales déloyales, il est utile de commencer par examiner ce qui est arrivé récemment dans le cas des procédures canado-américaines en matière de droits compensateurs, et de relier cet examen à l'étude des subventions dans les deux pays.

Les faits

La présente étude examine, en se fondant sur ce qui est le plus comparable possible, les faits connus relatifs aux programmes fédéraux de subventions et d'aide qui existent pour les secteurs non agricoles de l'économie des Etats-Unis et de celle du Canada. Les mesures d'aide comprennent les subventions, les prêts directs, les garanties de prêt et les programmes de remise de droits. Les données sur les dépenses fiscales et d'autres mesures d'aide indirecte sont également étudiées, mais celles-ci sont moins complètes. Certaines des subventions et des mesures d'aide dont il est ici question ne seraient pas considérées à l'heure actuelle comme des subventions donnant matière à compensation en vertu de la législation américaine ou canadienne concernant les droits compensateurs.

En examinant les recours en matière de droits compensateurs non agricoles intentés par les Etats-Unis contre le Canada, nous pouvons avoir une idée partielle mais approfondie des subventions consenties par tous les niveaux de gouvernement au Canada. Par exemple, les divers programmes canadiens de développement régional ont toujours été considérés par les Etats-Unis comme des subventions donnant matière à compensation depuis que le code des subventions du Tokyo Round a été intégré à la législation commerciale américaine. On a toutefois établi que le niveau de ces subventions était dans chaque cas de moins de 0.5 pour cent . . soit le niveau de minimis en vertu de la législation commerciale américaine. Même dans le cas de la deuxième procédure controversée Softwood Lumber, les subventions canadiennes auraient été de minimis, comme dans le premier cas, n'eût été la subvention controversée sur les droits de coupe.

La présente étude indique que, en 1984, à l'exception de l'agriculture, seulement quelques industries dans les deux pays bénéficiaient, à l'échelon fédéral, d'un taux de subvention suffisant pour qu'il y ait une incidence significative sur le commerce.

Les subventions explicites dans les secteurs industriels et des services réunis s'élevaient à une moyenne d'environ un pour cent au Canada et de 0.5 pour cent aux Etats-Unis. Sur 83 industries, cinq au Canada et quatre aux Etats-Unis bénéficiaient de taux de subventions supérieurs à cinq pour cent, tandis que pour six autres industries au Canada et neuf autres aux Etats-Unis, les taux se situaient en-deçà de cinq pour cent mais au-delà d'un pour cent. En outre, l'industrie ayant le plus haut taux de subvention mesuré dans chaque pays, soit l'industrie forestière aux Etats-Unis et les pêches au Canada, possède certaines des caractéristiques du secteur agricole.

Même s'il n'existe pas de données comparables après 1984, les deux gouvernements fédéraux ont pris des mesures pour réduire les subventions non agricoles dans des industries importantes. Au Canada, l'enchevêtrement de la réglementation des prix et des subventions dans le secteur énergétique en vertu du Programme énergétique national n'existe plus et, aux Etats-Unis, les obligations industrielles ont été fortement reduites à la suite de la réforme fiscale. En outre, parmi les autres industries fortement subventionnées, certaines n'avaient aucune production destinée au marché international, tandis que pour d'autres, les subventions visaient davantage à diminuer les importations qu'à augmenter les exportations.

L'étude conclut que, dans les deux pays, les subventions fédérales explicites n'ont qu'une incidence minimale sur le commerce non agricole entre le Canada et les Etats-Unis. On ne peut donc s'attendre à une avalanche de recours couronnés de succès en matière de droits compensateurs dans le secteur industriel, lesquels aboutiraient à l'imposition de droits compensateurs élevés sur un grand nombre de produits faisant l'objet d'échanges bilatéraux. Cependant, il y a toujours un risque que des actions de harcèlement soient entreprises, ce qui poserait alors un problème politique.

Avant de tirer des conclusions définitives, il faut toutefois poursuivre les recherches sur les programmes de subventions des gouvernements des provinces et des états, de même que sur certaines subventions indirectes (par ex., les droits de coupe ou les acquisitions de matériel de défense) qui portent souvent à controverse entre le Canada et les Etats-Unis. Par exemple, si les achats de matériel de défense étaient considérés comme des

subventions, le taux moyen de subvention non agricole fédérale aux Etats-Unis s'éléverait à environ deux pour cent et serait plus élevé que le taux de subvention moyen équivalent (achats de matériel de défense compris) au Canada.

Perspectives

La question des subventions et celle des droits compensateurs en matière de commerce agricole sont très différentes de celles qui touchent le commerce bilatéral dans le secteur industriel. D'après les données recueillies par l'Organisation de coopération et de développement économiques, il existe des subventions importantes pour un certain nombre de denrées agricoles dans les deux pays. Lors des négociations canado-américaines sur le libre-échange, il a été convenu que les subventions aux exportations seraient éliminées pour ce qui est du commerce bilatéral de produits agricoles. Cependant, étant donné les subventions fournies au commerce agricole par les pays tiers et les restrictions imposées à ce même commerce, il a également été convenu que les subventions nationales à l'agriculture, de même que les subventions à l'exportation de produits agricoles vers des marchés tiers, ne pouvaient être négociées que multilatéralement lors de l'Uruguay Round dans le cadre des négociations du GATT. Comme plus de la moitié des recours américains en droits compensateurs contre les exportations canadiennes et le seul recours canadien contre les exportations américaines portent sur des produits agricoles, les résultats des négociations multilatérales de l'Uruguay Round concernant l'agriculture auront également des répercussions importantes sur les relations commerciales canado-américaines.

En vertu de l'Accord de libre-échange, les deux pays conservent tous leurs droits et obligations en vertu du règlement du GATT, y compris le code des subventions issu du Tokyo Round. Ainsi, les résultats des négociations du GATT au cours de l'Uruguay Round détermineront l'ordre du jour bilatéral des négociations sur les subventions et les pratiques commerciales déloyales. Etant donné toutefois que le niveau des subventions allouées à la plupart des industries à l'échelon fédéral semble relativement bas dans les deux pays, la présente étude laisse entendre qu'il serait plus possible d'élaborer des approches bilatérales communes en matière de subventions et de droits compensateurs dans le secteur industriel que dans le secteur agricole.

I INTRODUCTION

Subsidies and allegations of "unfair" trading practices can be emotional and divisive international issues. In the debate on free trade with the United States, many Canadians expressed concern that social programs such as Canada's public health and hospital insurance systems might be attacked as an "unfair" subsidy in future negotiations under the Free Trade Agreement.[1] On the U.S. side, some interest groups and congressional leaders expressed concern about perceived massive Canadian subsidies that they argued were untouched by the Free Trade Agreement. These U.S. complaints served only to aggravate Canadian concerns.

The goal of developing new bilateral rules regarding subsidies and antidumping and countervailing duty laws was not achieved in the free trade negotiations between Canada and the United States. Canada sought greater security of access to the U.S. market and greater protection from unilateral decisions by U.S. administering agencies that can constrain Canadian exports and constrain the choices of Canadian policy makers. Yet at the same time, the U.S. Congress was seeking to amend U.S. trade legislation to offer domestic industries greater relief from import competition and to provide more effective redress against foreign trade practices perceived to be "unfair".[2] The goal remains since the Free Trade Agreement mandates future negotiations on subsidies and antidumping and countervailing duties.

The objective of this study is to clarify the issues and to initiate the process of developing common perspectives which may facilitate the development of mutually agreed trade rules. At least as an initial step in reconciling divergent Canadian and U.S. views on subsidies and the antidumping and countervailing duty laws, it is necessary to understand the evolution and current operation of U.S. and Canadian trade laws and to take account of empirical estimates of subsidy levels in the two countries.

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[1] See Joe Surich "Labour Concerns About Free Trade" in Murray G. Smith and Frank Stone (eds.), Assessing the Canada-U.S. Free Trade Agreement, (Halifax: Institute for Research on Public Policy, 1987), p. 199. This issue became the subject of television advertisements during the Canadian federal election of November 1988.

[2] See Richard G. Lipsey and Murray G. Smith, Global Imbalances and U.S. Policy Responses: A Canadian Perspective, (Washington and Toronto: Canadian-American Committee, 1987) and "Roundtable on U.S. Trade Legislation", International Economic Issues, August 1987, (Halifax: Institute for Research on Public Policy).

Provisions of the Free Trade Agreement

The provisions of the Free Trade Agreement (FTA) on these contentious trade policy issues can be described as a stand-off. There was no agreement on new rules to govern antidumping and countervailing duties, but procedural changes were agreed to with respect to the administration of each country's national trade laws. Chapter 19 sets up a new bi-national appeal mechanism, which can replace existing judicial review by the domestic courts of final decisions by the national administering agencies, as well as a review mechanism to monitor changes in antidumping and countervailing duty laws as they apply to the partner country. The objective of these dispute settlement procedures is to provide a more timely appeal mechanism than is available through the courts and to provide joint scrutiny of the decisions taken by the administrative authorities in both countries.[3] Although the softwood lumber dispute influenced the free trade negotiations and the resulting agreement, the understanding on softwood lumber negotiated between Canada and the United States in late 1986 after the preliminary determination by the Department of Commerce was not affected by the FTA. Thus, the issue of stumpage subsidies remains to be resolved either through the future negotiations on subsidies or through the dispute settlement processes under the Agreement.

The free trade negotiations were, however, able to resolve some contentious subsidy issues in other sectors. In the automotive sector, the issue of Canada's export-based duty remission mechanism was resolved in a way which served both Canadian and U.S. objectives, while avoiding a potential U.S. countervailing action which would have been very disruptive to bilateral trade.[4]

In the primary agriculture sector both countries have substantial subsidies (see Table 1). Neither country was prepared to dismantle domestic agricultural subsidies on a bilateral basis, because of concerns about the impact on world agricultural markets of the subsidy practices and import restrictions of third countries. However, Canada and the

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[3] See Debra Steger, "The Dispute Settlement Mechanisms of the Canada U.S. Free Trade Agreement: Comparison with the Existing System"; Shirley Coffield, "Dispute Settlement Provisions"; Richard Dearden, "Antidumping and Countervailing Duty Provisions: Judicial Review by Binational Panels"; and Gary Horlick and Debra Valentine, "Improvements in Trade Remedy Law and Procedures under the Canada-U.S. Free Trade Agreement" in D. McRae and D. Steger, (eds.) Understanding the Free Trade Agreement, (Halifax: Institute for Research on Public Policy, 1988).

[4] For an analysis of the implications of the automotive provisions of the FTA, see Paul Wonnacottt, "The Auto Sector" in Jeffrey J.Schott and Murray G.Smith, The Canada United States Free Trade Agreement: The Global Impact (Washington, D.C. and Halifax: Institute for International Economics and the Institute for Research on Public Policy, 1988), pp. 101-109.

United States did agree to eliminate export subsidies for bilateral trade in agricultural products and Canada has agreed to eliminate import licensing requirements for wheat, oats and barley when subsidy levels in the two countries are equivalent.

TABLE 1
PRODUCER SUBSIDY EQUIVALENTS BY COUNTRY AND COMMODITY, 1979-86 (selected years)
(as a percentage of producer income)

	1979	1982	1984	1986
CANADA				
Crops	13.7	19.7	25.2	53.5
Livestock products	31.2	30.9	37.4	39.3
All products	23.7	25.8	31.9	45.7
EUROPEAN COMMUNITY[1]				
Crops	41.2	32.1	17.9	60.5
Livestock products	45.3	32.8	36.7	45.4
All products	44.3	32.6	31.4	49.3
JAPAN				
Crops	77.7	76.7	80.8	92.0
Livestock products	44.8	38.4	43.5	52.3
All products	64.3	59.4	64.9	75.0
UNITED STATES				
Crops	8.2	13.6	21.4	47.2
Livestock products	19.9	20.0	24.7	27.0
All products	14.7	17.1	23.3	35.4

Source: Organization for Economic Cooperation and Development, Monitoring and Outlook of Agricultural Policies, Markets and Trade (Paris, May 1988)

[1] All present members of the EC except Portugal and Spain.

The influence of U.S. protectionist pressures was evident in the softwood lumber dispute between Canada and the United States. Although various congressional bills directed against softwood lumber imports did not become law, a change in the interpretation of U.S. countervailing duty law by the U.S. Commerce Department in the 1986 Softwood Lumber case, resulted in a negotiated settlement where Canada imposed a 15 per cent export tax on lumber shipped to the United States.[5] The bitter conflict over softwood lumber shaped official attitudes on both sides during the free trade negotiations and influenced the agreement that emerged. In effect the FTA seeks to prevent the recurrence of a softwood lumber situation where the administrative interpretation of the trade laws was perceived by Canadians as being altered in response to protectionist pressures.

Apart from subsidies, growing economic interdependence has created concern about the trade practices and domestic policies of foreign governments that may influence, or are perceived to influence, the competitive positions of particular industries in foreign markets. Thus, concerns about unfair trade extend beyond the issues involved in countervailing and antidumping duties and encompass issues affecting trade in services and foreign direct investment. In the United States these concerns are reflected in Section 301 of the Trade Act of 1974, as amended by the Trade and Tariff Act of 1984, and the Omnibus Trade and Competitiveness Act of 1988. Canada has enacted a similar legislative provision.

For the most part, these omnibus trade policy issues will be dealt with through the general dispute settlement procedure under Chapter 18 of the Free Trade Agreement, but important sectors, such as cultural industries, transportation services and basic telecommunications services, are excluded from the Agreement. Since there are very limited provisions in the FTA pertaining to intellectual property, U.S. actions under the "special 301" procedure respecting intellectual property will not be dealt with under the Chapter 18 dispute settlement mechanism.[6] Furthermore, for those sectors covered by the Agreement, the dispute settlement mechanism remains to be tested. Although the procedures in Chapter 18 embody a number of the proposals for reform of the GATT dispute settlement process, concern has been expressed about how the bilateral process will operate in practice because the bi-national Secretariat that will handle dispute settlement is circumscribed in its capabilities.[7]

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[5] Michael Percy and Christian Yoder, The Softwood Lumber Dispute and Canada-U.S. Trade in Natural Resources (Halifax: Institute for Research on Public Policy, 1987).

[6] Apart from copyright on broadcast retransmission, the FTA states only the "Parties shall cooperate in the Uruguay Round of multilateral trade negotiations and in other international forums to improve protection of intellectual property", Article 2004, Canada-U.S. Free Trade Agreement.

[7] See "Comments" by Robert Hudec and Frank Stone in The Canada-U.S. Free Trade Agreement: The Global Impact, eds. Jeffrey Schott and Murray G. Smith, (Washington and Halifax: Institute for International Economics and Institute for Research on Public Policy, 1988).

Just as the institutions and dispute settlement procedures of the GATT have evolved, one might anticipate that the institutional arrangements of the Free Trade Agreement will evolve. Indeed, the FTA mandates further negotiations in a number of areas, including a series of technical negotiations on issues such as agricultural standards, but the most politically sensitive issue is the negotiation of new bilateral trade rules for subsidies and the antidumping and countervailing duty laws.[8]

The Free Trade Agreement provides for the establishment of a Working Group that "shall:

a) seek to develop more effective rules and disciplines concerning the use of government subsidies;

b) seek to develop a substitute system of rules for dealing with unfair pricing and government subsidization; and

c) consider any problems that may arise with respect to the implementation of this Chapter and recommend solutions, where appropriate."[9]

The Agreement establishes a five-to seven-year timetable to complete the negotiation of these rules. In the meantime, each country retains its rights and obligations under the GATT and the GATT antidumping and subsidies codes.[10] Thus, the Uruguay Round of multilateral negotiations will have an important influence on the bilateral agenda.

Although countervailing and antidumping duty issues are dealt with jointly in Chapter 19 of the FTA, and these issues are often linked in negotiations because the administrative procedures are essentially similar, they present quite different policy issues. Since antidumping laws are directed against private business practices, the principal issue is whether the United States and Canada can agree to an alternative regime based on a competition policy approach involving reciprocal enforcement of laws against price discrimination. In addition to technical issues, there are economic questions about the impact on investment decisions in cyclical industries of moving to a competition policy standard that would permit greater price competition than under the existing antidumping laws of both countries.[11]

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[8] See Michael Hart, "The Future on the Table: The Continuing Negotiating Agenda Under the Canada-United States Free Trade Agreement", a paper presented at the University of Ottawa, May 5, 1989.

[9] Article 1907, Canada-United States Free Trade Agreement.

[10] See remarks by the panel of international experts in the Financial Post of November 12-14, 1989, p. 21.

[11] See Mark Gillen, Lawson Hunter, Douglas Rosenthal and Todd Miller, "Canadian and U.S. Antitrust Law -- Areas of Overlap Between Antitrust and Import Relief Laws", Canada-United States Law Journal, Volume 12, 1987 pp. 39-73.

The negotiation of new bilateral rules governing subsidies and countervailing duties raises more difficult questions about the conduct of domestic policy and the exercise of sovereignty, particularly for Canada, which depends heavily on exports to the United States. For example, differences in the choice of policy instruments between Canada and the United States often lead U.S. industries to allege that unfair trade practices are benefiting Canadian competitors. As the smaller economy, Canada is sensitive to foreign pressures on domestic policy decisions. Thus, the political sensitivity and complexity of these negotiations is much greater than negotiations of rules governing the pricing practices of private firms.

Critics of the Canada-U.S. Free Trade Agreement on both sides of 49th parallel have expressed concern about the failure to develop common rules to deal with unfair trade allegations. Reconciling Canadian and U.S. perspectives on these issues is likely to prove difficult. What is required now is a dispassionate examination of the issues involved in subsidies and unfair trade allegations. As John Jackson, a noted U.S. expert on trade laws observes:

> What is often surprising, is that even nations with very similar economic systems, such as two industrial country market economies, can find that minor variations in their economic systems can create situations which have the appearance of unfairness. These situations may have arisen almost completely by accident. That is, there may have been no intention to engage in any practice which is deemed 'unfair'...I have termed this problem the "interface" problem...When it is desired that two computers of different makes work together, it often takes some kind of "interface" mechanism or programme to mediate between them and to translate the language of one machine to that of the other. Likewise, when two societies with even minor economic differences desire to work together, frictions or misunderstandings can occur unless there is an interface mechanism. To a certain extent, the national trade laws and the GATT Bretton Woods System are operating today as a rather crude interface mechanism. The problem often is that policy leaders have not perceived this, but instead believe that it is necessary to characterise some practices as "unfair" or "illegal". In at least some of the international trade problems which exist today, a more neutral terminology and policy approach that would avoid moral overtones may operate with greater utility for world economic welfare and harmony.[12]

Outline

This paper seeks to put the issues involved in the future negotiations of rules for subsidies and antidumping and countervailing duties into context. The next section examines the historical roots of, and recent experience with, countervailing and antidumping duty laws. The recent countervailing duty cases do provide specific and detailed evidence about the magnitude of subsidies in both countries and illustrate some of the contentious issues arising from the application of countervailing duty laws.

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[12] J.H. Jackson, "Achieving a Balance in International Trade", International Business Lawyer (April 1986), p. 124-125.

The subsequent section reviews the available evidence on federal assistance programs available to specific industries in the non-agricultural sectors in Canada and the United States. It is evident from research published by the Organization for Economic Cooperation and Development that both countries provide substantial support to agricultural producers (see Table 1). Furthermore, both U.S. and Canadian agricultural subsidies increased during the 1980s as part of protracted conflict with the European Community over agricultural trade issues. However, the evidence on non-agricultural subsidies in both countries, which is reviewed here, draws on previously unpublished research.

The final section summarizes the available evidence and discusses the possible agenda for the bilateral negotiations, which will be influenced greatly by the multilateral negotiations during the Uruguay Round.

II TRADE LAWS: THE BILATERAL EXPERIENCE

Although the antidumping and countervailing duty laws of the United States and Canada are now similar, the trade laws of each has evolved in different ways and the experience with the application of the laws has been different, reflecting differences in the pattern of trade.

Evolution of U.S. and Canadian Antidumping and Countervailing Duty Laws

The historical roots of antidumping and countervailing duty laws in the United States and Canada reach back to the turn of the century. U.S. countervailing duty law was promulgated in the 1890s, as part of the doctrine of the "scientific tariff." In the scientific tariff era, U.S. tariffs were calculated to offset the cost or productivity advantages of foreign competitors. In accordance with this doctrine, it was argued that if foreign producers had access to subsidies, they would be able to surmount U.S. tariff barriers and reassert their comparative cost advantage.

The emphasis on preserving the effects of U.S. tariffs is reflected in the fact that until the 1974 Trade Act was passed, U.S. countervailing duties were applicable only to dutiable imports and were not applied to duty-free imports. The U.S. countervailing duty law was applied actively until the 1920s, but it became increasingly irrelevant as the United States withdrew from world trade behind the high Smoot Hawley tariffs, legislated in the Tariff Act of 1930, amidst the global spiral of protectionism and financial crises that culminated in the Great Depression.

For its part, Canada developed antidumping laws as a way to protect Canadian industry from the alleged predatory practices of U.S. firms. In particular, the Canadian steel industry was concerned about the practices of the U.S. steel industry. In 1901, 180 independent firms were merged into U.S. Steel, which controlled more than 90 per cent of the U.S. market for iron and steel products. The apparent objective of the merger was to create monopoly power, and it was alleged that U.S. Steel would dispose of surplus production in the Canadian market by discounting the price sufficiently to climb over Canadian tariffs.[13] The Canadian government responded by introducing antidumping legislation. Canada's Minister of Finance of the day stated that:

> the trust or combine, having obtained command and control of its own market and finding that it will have a surplus of goods, sets out to obtain command of a neighbouring market, and for the purpose of obtaining control...will put

[13] For a discussion of the antitrust case against U.S. Steel, see Phillip Areeda, Antitrust Analysis, Third Edition (Boston: Little Brown, 1980), p. 152.

> aside all reasonable considerations with regard to the cost or fair price of the goods....If these trusts and combines in the high tariff countries would come under obligations...to supply us with these goods at the lowest prices for the next fifty years, it would probably be the part of wisdom for us to close up some of our industries and turn the energies of our people to other branches. But surely none of us imagine that when their high tariff trusts and combines send goods into Canada at sacrifice prices they do it for any benevolent purpose. They are not worrying about the good of the people of Canada. They send the goods here with the hope and the expectation that they will crush out the native Canadian industries.[14]

The rationale for antidumping legislation in the United States was also based on curbing predatory practices. Indeed, the Antidumping Act of 1916 provided that dumping was unlawful if "done with the intent" of destroying U.S. industries or monopolizing U.S. trade.[15] Although the 1916 act still applies, it has been superseded by the Antidumping Act of 1921 and the Trade Agreements Act of 1979, which require a less stringent 'injury' test before antidumping duties are levied.

While antidumping duties have been used to prevent predation by private firms, the use of countervailing duties has been justified on the grounds that foreign subsidies can damage domestic industries and create a potential monopoly for foreign suppliers of particular products.[16]

Although government subsidies, such as financing for the construction of railways and canals, have had noticeable effects on trade between Canada and the United States since the nineteenth century, they have become prominent bilateral trade issues only within the past two decades. Prior to the 1970s, the two countries shared a postwar consensus that domestic subsidies were permitted and that only non-agricultural export subsidies were prohibited under GATT rules. Since neither country provided significant export subsidies in the industrial sector, the issue of countervailing duties directed against such subsidies was largely irrelevant to bilateral trade. One exception, in the early 1960s, involved a U.S. radiator manufacturer's allegation that Canada's newly instituted automotive duty remission program constituted an export subsidy. Since there was no requirement for an injury finding in U.S. countervailing duty law at that time, duties likely would have been imposed on automotive products from Canada. But this dispute was resolved by the negotiation of the Canada-U.S. Auto Pact in 1965, which provided for bilateral duty-free trade, on condition that automotive firms operating in Canada exceed the production thresholds

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[14] The 1904 Budget Speech of the Minister of Finance, W.S. Fielding, cited in R. de C. Grey, "Trade Policy and the System of Contingency Protection in the Perspective of Competition Policy" (Paper prepared for the Department of External Affairs, released under the Freedom of Information Act, Ottawa, May 1986), pp. 11-12.

[15] Ibid., p. 12.

[16] G.C. Hufbauer and J.S. Erb, Subsidies in International Trade (Washington, D.C.: Institute for International Economics, 1984), p. 21; and Jackson, "Achieving a Balance", p. 125.

established under the Auto Pact and that imports into the United States meet the North American content rules.

The 1973 U.S. Michelin Tire decision marked the breakdown of the postwar consensus. This was the first example of the imposition of countervailing duties on products receiving domestic subsidies, in this instance under Canada's regional development programs. Although other U.S. countervailing duty cases were launched against Canadian products later in the 1970s, the effects on bilateral trade were limited by the U.S. waiver (under a special provision of the Trade Act of 1974) of countervailing duties for countries participating in the Tokyo Round of trade negotiations. The United States inserted this waiver of countervailing duties in the Trade Act of 1974 because the application of countervailing duties to domestic subsidies without an injury test was highly controversial among its trading partners. Article VI of GATT requires an injury test before countervailing duties can be imposed, but because the longstanding U.S. countervailing law had no injury requirement and had never been amended, the United States had argued that it could impose countervailing duties without an injury test under the grandfather provisions of the Protocol of Provisional Application of the GATT. This U.S. argument had been more or less accepted by its trading partners when the United States imposed countervailing duties only on export subsidies, which were prohibited for industrial products under the GATT. When the United States extended the range of application of its countervailing duty law to include domestic subsidies, the move was seen as highly controversial, not only by Canada in the Michelin case, but also by other major trading partners.

Negotiations on subsidies and countervailing duties proved extremely difficult during the Tokyo Round. The United States proposed a traffic-light approach to subsidies; some subsidies (such as export subsidies) would be categorized as red-light or prohibited; some as yellow-light (such as production subsidies with trade effects) and thus, subject to countervailing duties with an injury test; and some in a third category as green-light subsidies, which would be permitted and not be subject to countervailing duties.[17] The European Community resisted any effort to impose discipline on subsidies in the form of a prohibited list. The result of the protracted impasse over subsidies in the Tokyo Round negotiation was a code that provides no clear definition of what is, or is not, a countervailable domestic subsidy, but does require an injury test before applying countervailing duties. The ambiguity of the Tokyo Round subsidy code effectively resolved the conflict between the European Community and the United States, because the European Community attached a high priority to obtaining an injury requirement in U.S. countervailing duty law, while it resisted any restrictions on domestic subsidies or agricultural export subsidies.

Although Canadian antidumping law predates U.S. antidumping law, Canada has had countervailing duty law only since the late 1970s. It was not until the Special Import Measures Act was passed in 1984, that Canada has had a mandatory countervailing duty law offering recourse to private petitioners and which is analogous to the U.S. countervailing duty law.

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[17] See Harold B. Malmgren, International Order for Public Subsidies, (London: Trade Policy Research Centre, 1977), pp. 66-67.

Existing Antidumping and Countervailing Duty Laws

Although there are significant technical differences in the antidumping and countervailing duty laws and administrative procedures of Canada and the United States, the broad elements are similar.[18] As the previous section suggests, the antidumping and countervailing duty laws of both countries have been shaped by successive rounds of multilateral negotiations under GATT auspices. Also there has been a trend in both countries to formalize quasi-judicial procedures for the antidumping and countervailing duty laws according to the canons of administrative law.

In both countries, private firms can launch antidumping and countervailing duty actions by filing a petition with the administering agencies. The International Trade Administration of the Department of Commerce in the United States and the Department of National Revenue in Canada calculate the margin of subsidy or dumping. The criteria for measuring margins of subsidy and dumping are complicated, and import-competing industries have lobbied for changes in the criteria which have tended to increase the margins.

In both countries, a quasi-judicial agency -- the International Trade Commission in the United States and the Canadian International Trade Tribunal in Canada -- must make a determination of material injury to producers of a like product before antidumping and countervailing duties are imposed. In the United States, if the International Trade Commission finds injury then duties in the amounts of the margin of dumping or subsidy are imposed. In Canada, separate public interest hearings by the Canadian International Trade Tribunal may recommend reductions in the amount of the duty, but in practice the Canadian system operates much like the U.S. system.

Recent Bilateral Experience with Countervailing Duties[19]

The conclusion of the Tokyo Round ushered in a new era in the administration of countervailing duties, with significant implications for bilateral trade. On the U.S. side, there have been 14 countervailing duty investigations of Canadian products since 1980. Five of these actions were unsuccessful; four resulted in countervailing duties; two were resolved by negotiations; one -- the second softwood lumber case -- was terminated when

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[18] For a summary description of the Canadian system, see G. Salembier, F. Stone and A. Moroz, The Canadian Import File: Trade, Protection and Adjustment (Halifax: Institute for Research on Public Policy, 1987). For a concise summary of the U.S. system, see G. Horlick, J. Bello, and J. Talbot, A Manual of U.S. Trade Laws (Toronto: Canadian Manufacturers Association, 1985). Of course, Canadian procedures have been altered, but not dramatically, by passage of the Canadian International Trade Tribunal Act and the implementing legislation for the Canada-U.S. Free Trade Agreement. The U.S. legislation was amended by the Omnibus Trade and Competitiveness Act of 1988.

[19] This section focuses on bilateral countervailing duty cases. There are also a large number of antidumping cases taken in both countries, with about twice as many Canadian cases involving U.S. exports as the reverse.

Canada imposed an export tax and two cases are in progress. On the Canadian side, the only case involving the United States, since the passage of the Special Import Measures Act in 1984, imposed a countervailing duty on corn. The experience with countervailing duty cases in Canada-U.S. trade is summarized in Tables 2 and 3.

It is difficult to provide a good statistical measure of the effects of countervailing duties on bilateral trade. Excluding the softwood lumber case, the volume of bilateral trade subject to countervailing duty orders was about $200 million in 1986. In contrast, the softwood lumber case involved about $3 billion in Canadian exports to the United States. It is evident why the 1986 Softwood Lumber case, and the reversal by the Department of Commerce, of the previous 1983 Softwood Products decision, which held that stumpage was not a countervailable subsidy, attracted so much attention in Canada.

The records of the bilateral countervailing duty cases offers some specific, if very particular, evidence about the magnitude of subsidies in the two countries. The cases provide in-depth evidence about the overall level of subsidies in particular industries and about the magnitude of different types of subsidies. Since this paper focuses on non-agricultural subsidies, only the U.S. cases against Canadian exports are examined.

Regional development subsidies are of particular concern to Canadians. In each of the U.S. countervailing duty cases involving non-agricultural Canadian exports, a large number of federal and provincial government programs were investigated by the U.S. Commerce Department. In every case since the Tokyo Round Subsidies Code was implemented in the U.S. Trade Agreements Act of 1979, any federal government program or tax expenditure targeted to specific regions of Canada, or provincial measures targeted to specific regions of a province, have been determined to be countervailable subsidies. Moreover, when the United States implemented the Tokyo Round Agreements in the Trade Agreements Act of 1979, the calculation of cost offsets for regional development subsidies was excluded from the U.S. countervailing duty law.[20]

Each of these exhaustive investigations of Canadian federal and provincial regional development subsidies since 1980 has yielded relatively low margins of subsidy as calculated by the U.S. Commerce Department. In each instance, the aggregate effect of various Canadian regional development programs led to calculated subsidy margins of less than 0.5 per cent -- the de minimis level, in U.S. trade law. For example in the 1986 Softwood Lumber case, 26 federal and provincial regional development and business assistance programs were found by the Commerce Department to confer benefits that were countervailable under U.S. trade law. Yet these subsidies amounted to 0.458 per cent, or less than the 0.5 per cent de minimis level, as had been the ruling in the earlier 1985 Softwood Products decision. The difference in the outcome of the two cases was the inclusion in the 1986 Softwood Lumber decision of the controversial stumpage subsidy, which was calculated to be 14.452 per cent.

Another controversial type of subsidy is government equity infusions into commercial enterprises. In the Fresh Atlantic Groundfish case, about a third of the final subsidy margin calculated by the U.S. Department of Commerce was attributed to equity infusions

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[20] Rodney de C. Grey, United States Trade Policy Legislation: A Canadian View, (Montreal: Institute for Research on Public Policy, 1982), p.41.

associated with the restructuring of fish processing companies. It is often difficult to judge whether such government equity investments are made on the basis of commercial considerations. In fact, the fish processing companies in Atlantic Canada, which were the subject of the restructuring program, subsequently became profitable and have been privatized. Thus, it may be argued, at least a portion of the government equity infusions should not be treated as a subsidy, but after the fact it is not possible to measure accurately the amount of risk borne by governments, nor to compare the outcome with private bankruptcy proceedings. The same issue arose in the Chrysler bailout where the U.S. and Canadian governments assumed some of the risk of default through loan guarantees.

If one excludes the 1986 Softwood Lumber decision as a special case, then one is struck by the relatively low margins of subsidy, which the Department of Commerce has calculated for industrial products imported from Canada. However, there are some exceptions. In the 1989 Steel Rail case, Sysco was found to have a margin of subsidy of 103.5%. Without commenting on the specifics of the preliminary determination, it is clear that Sysco is subsidized. It is a Crown corporation operating a small obsolete steel mill in an area of very high unemployment on Cape Breton Island. Only a small proportion of Sysco's output goes to exports and the volume of trade involved is minuscule. More representative are the findings in the 1989 Steel Rail case that Algoma, a significant commercial producer, received subsidies that were below the de minimis level of .5 per cent, and the 1985 Tubular Goods case which found a margin of subsidy of .72 per cent.

Summary

With the exception of the 1986 Softwood Lumber case, the volume of Canada-U.S. trade affected by countervailing duties has been relatively modest. Furthermore, the calculated margins of subsidy for non-agricultural Canadian exports have been modest. (There have been no Canadian countervailing duty cases against U.S. non-agricultural products).

One might wonder whether there are heavily subsidized industries in either Canada or the United States which have not been the subject of countervailing duty investigations, but which may be subject to such actions in the future. This is the question on which the evidence on federal subsidies reviewed in the next section casts some light.

TABLE 2
U.S. COUNTERVAILING DUTY INVESTIGATIONS OF CANADIAN EXPORTS 1980-88

YEAR INITIATED	CASE	Preliminary Determination		Final Determination	
		ITC	ITA	ITC	ITA
1979	Frozen Potato Product	Negative	-	-	-
1980	Unprepared Fish	Negative	-	-	-
1981	Herring Fillet	Negative	-	-	-
1982	Rail Passenger Cars	Affirmative	Affirmative	Terminated (Petitioner withdrew)	Terminated -
1982	Certain Softwood Products (three cases) - Softwood Lumber - Softwood Shakes & Shingles - Softwood Fences	Affirmative (0.32%) (0.24%) (0.29%)	Negative	-	-
1984	Live Swine and Pork	Affirmative (swine only)	Affirmative	Affirmative (swine only)	Affirmative 25.523 cents/lb dressed-weight 43.9 cents/lb live-weight
1985	Red Raspberries	Affirmative	Affirmative (0.99%)	Suspension	Terminated (govt. agreement)
1985	Oil Country Tubular Goods	Affirmative	Affirmative (0.72%)	Affirmative	Affirmative (0.72%)
1985	Fresh Atlantic Groundfish	Affirmative	Affirmative (6.85%)	Affirmative (only whole fish, no fillets)	Affirmative (5.82%)
1986	Softwood Lumber	Affirmative	Affirmative (15%)	Terminated	Terminated (petitioner withdrew)
1986	Cut Flowers	Affirmative	Affirmative (0.52%)	Partial Affirmative	Affirmative (1.47%)
1989	Fresh, Chilled and Frozen Pork	Affirmative	Postponed		

Source: Operation of the Trade Agreement Program, U.S. International Trade Commission, various issues; U.S. Federal Register, various issues.

TABLE 3
CANADIAN COUNTERVAILING DUTY INVESTIGATIONS OF CANADIAN EXPORTS 1980-88

YEAR INITIATED	CASE	Preliminary Determination		Final Determination	
		INJURY	COUNTERVAILING DUTY	INJURY	COUNTERVAILING DUTY
1986	Grain Corn	Yes	U.S. $1.048 (per bushel)	Yes (with exceptions)	U.S. $0.865[1] (per bushel)

Sources: Revenue Canada
Canadian International Trade Tribunal

1 Has been revised to Cdn. $ 0.46 (per bushel).

III CANADIAN AND U.S. NON-AGRICULTURAL SUBSIDIES

This section reviews, on as comparable a base as possible, the available evidence related to federal subsidy and assistance programs provided for the non-agricultural sectors of the economies of the United States and Canada. Detailed estimates of subsidies are presented for 83 non-agricultural industries in 1984. The assistance measures covered include grants, direct loans, loan guarantees and duty remission programs. Data are also incorporated on tax expenditures (assistance provided by means of tax incentives and preferences) and other indirect assistance measures, but on a less comprehensive basis.

The analysis draws on technical working papers, prepared principally by Kaminow and Moroz. The sources and methodology are discussed in Annex 1. Some of the subsidy and assistance measures incorporated in the data would not be regarded as countervailable subsidies at present under either U.S. or Canadian countervailing duty law. Thus, the data should be regarded as general indicators of the nature and extent of subsidy measures in the two countries.

As the universe of government programs is constantly changing with the creation of new programs, the elimination of others and the alteration of funding levels, this account should be regarded as a snapshot of programs available to specific industries for the year studied, 1984. However, later in the study, we will attempt to update, at least on an aggregate basis, these 1984 data and assess recent trends in the subsidy policies of both the United States and Canada.

It is impossible to give any precise indication of the level of subsidy in each country, as estimates can be misleading and easily challenged. Part of the problem arises from the lack of information on tax expenditures in Canada. This results in an underestimation of the total amount of subsidies in Canada and makes comparisons between the United States and Canada difficult. Nevertheless, it appears that tax expenditures play a much smaller role in Canada than in the United States, where they are the principal means of subsidy.

Summary Analysis By Industry for 1984

The U.S. federal subsidy measures for the 83 non-agricultural industries are presented in Table 4.[21] In the United States, we estimated the average rate of subsidy for non-agricultural industries at 0.50 per cent in 1984 (Table 4).[22] Because we used domestic shipments in this report, the aggregate subsidy rate for the entire business sector is somewhat higher than the average rate reported here. If defence procurement is included as a subsidy measure the aggregate U.S. subsidy rate would be about 2.0 per cent rather than 0.50 per cent (see Annex 2).

Unless defence procurement is included as a subsidy, at the federal level, the average subsidy rate is quite low in the United States. However for a better estimate of the exact rate of subsidy in the United States, we believe that some additional and more up-to-date analysis of federal subsidies should be done. Also, studies of subsidy levels by the 50 state governments would also provide a more complete picture of subsidies in the United States.

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[21] To estimate a subsidy level by industry, we used the Cox-Harris-Moroz classification system, which distinguishes 86 industries. The same classification was used by Kaminow. Thus, for the United States study, we allocated the additional data to these 86 industries. Unfortunately, some of the new data we obtained related to programs not targeted to specific industries. As we did not have detailed information on which to base a distribution among industries, the funds provided by these programs were placed in the "unallocated" category. The Moroz study used another classification system containing 111 industries. To facilitate comparisons between Canada and the United States, we aggregated this classification to the Cox-Harris-Moroz classification system using a concordance system. Then we allocated the few additional data we obtained according to this classification. Further, the same denominator was not used to calculate the subsidy rate in each country. In his study, Kaminow used domestic shipments data, which are based on U.S. Department of Labor estimates of industry revenues. Although we recognize that the sum of domestic shipments exceeds the value-added of the business sector, because of interindustry sales, we use the same data in our study. It is interesting to note that the total amount of domestic shipments is in fact about two times larger than GDP. In Canada, the only information available for 1984 allocated in the Moroz classification system is Canadian production data provided by the Department of Finance (Canadian production corresponds to gross output). To get a similar classification system to that of the United States, we changed them to obtain information based on the Cox-Harris-Moroz system of 86 industries. As in the United States, data used in this study for Canada, i.e., Canadian production, are about two times larger than GDP.

[22] For both countries, agriculture, health and education, and owner dwelling are not included in the subsidy rate tables.

TABLE 4
DOMESTIC SHIPMENTS, AGGREGATE SUBSIDY FLOW AND SUBSIDY RATE FOR U.S. PRODUCTION SUBSIDIES, 1984

Cox - Harris - Moroz Industries	Domestic Shipments (U.S. $ millions)	Subsidy Flow (U.S. $ millions)	Subsidy Rate %
1 Agriculture[1]			
2 Forestry	6,295	751.3	11.93
3 Fishing and Hunting	2,687	17.7	0.66
4 Metal Mining	6,358	278.7	4.38
5 Petroleum & Gas Wells	138,431	3082.1	2.23
6 Other Mining	39,346	953.7	2.42
7 Meat Products	54,434	92.2	0.17
8 Poultry Products	10,890	9.4	0.08
9 Fish Products	4,815	8.6	0.18
10 Dairy Products	35,256	37.9	0.11
11 Fruit & Vegetable Products	20,916	30.9	0.15
12 Grain Products	39,006	45.7	0.12
13 Confectionary Products	41,839	45.7	0.11
14 Misc. Food Products	69,814	123.6	0.18
15 Distilleries & Breweries	21,683	15.4	0.07
16 Wineries	3,826	40.1	1.05
17 Tobacco & Tobacco Products	21,726	60.1	0.28
18 Rubber & Rubber Products	66,820	173.2	0.26
19 Leather Footwear	5,226	28.8	0.55
20 Leather & Other Leather Products	4,152	12.8	0.31
21 Yarn & Cloth	34,452	60.4	0.17
22 Synthetic Textiles	15,502	67.5	0.43
23 Other Textiles	25,915	119.5	0.46
24 Knitting Mills	11,142	20.8	0.19
25 Clothing	43,105	170.2	0.39
26 Sawmills	30,056	52.3	0.17
27 Veneer, Plywood, Sash & Doors	17,624	33.8	0.19
28 Other Wood Products	29,376	52.5	0.18
29 Furniture	33,486	65.7	0.20

TABLE 4 (Cont'd)
DOMESTIC SHIPMENTS, AGGREGATE SUBSIDY FLOW
AND SUBSIDY RATE
FOR U.S. PRODUCTION SUBSIDIES, 1984

Cox - Harris - Moroz Industries	Domestic Shipments (U.S. $ millions)	Subsidy Flow (U.S. $ millions)	Subsidy Rate %
30 Pulp & Paper Products	45,192	124.9	0.28
31 Other Paper Products	54,431	121.8	0.22
32 Printing & Publishing	96,498	214.5	0.22
33 Engraving & Stereotyping	6,533	10.4	0.16
34 Iron & Steel	62,921	195.8	0.31
35 Steel Pipe & Tube	3,940	16.5	0.42
36 Smelting & Refining	8,576	475.8	5.55
37 Aluminum Rolling, Casting	16,466	32.9	0.20
38 Other Metal Rolling, Casting	16,339	37.2	0.23
39 Boiler & Plate	5,317	17.2	0.32
40 Fabricated Structural Steel	22,669	63.3	0.28
41 Metal Stamping	43,393	53.7	0.12
42 Wire & Wire Products	13,630	38.0	0.28
43 Hardware & Cutlery	10,336	44.3	0.43
44 Oth. Metal Fabricating	32,675	165.0	0.50
45 Agric. Mach. & Equip.	9,056	31.7	0.35
46 Ind. Mach. & Equip.	116,944	426.9	0.36
47 Commercial, Office & Store Equip.	74,835	585.9	0.78
48 Aircraft & Parts	71,466	483.4	0.68
49 Motor Vehicles	121,490	493.3	0.41
50 Motor Veh. Parts	47,838	200.8	0.42
51 Shipbuilding	9,455	548.1	5.80
52 Oth. Trans. Equip.	8,163	23.0	0.28
53 Small Elec. Appl.	6576	30.5	0.46
54 Lge Elec. Appl.	118,353	78.3	0.43
55 Comm. Equip.	104,053	983.6	0.94
56 Electrical Industrial Equipment	20,929	377.2	1.80
57 Other Electrical Products	37,716	157.7	0.42
58 Cement & Concrete	19,812	60.4	0.30
59 Glass & Glass Products	13,203	33.2	0.25
60 Other Non-Metal Mining Products	19,738	48.6	0.25

TABLE 4 (Cont'd)

DOMESTIC SHIPMENTS, AGGREGATE SUBSIDY FLOW AND SUBSIDY RATE FOR U.S. PRODUCTION SUBSIDIES, 1984

Cox - Harris - Moroz Industries	Domestic Shipments (U.S. $ millions)	Subsidy Flow (U.S. $ millions)	Subsidy Rate %
61 Petroleum Refin.	168,803	397.6	0.24
62 Other Petr. & Coal Prods.	7,192	16.5	0.23
63 Mixed Fertilizer	14,626	40.3	0.28
64 Plastic & Synthetic Resin	20,889	136.3	0.65
65 Pharmaceuticals	27,832	1114.7	4.00
66 Household Cheas.	35,264	112.7	0.32
67 Industrial & Other Chemicals	81,011	534.3	0.66
68 Scientific & Professional Equipment	56,500	577.3	1.02
69 Misc. Manufacturing	32,630	146.9	0.45
70 Construction	356,912	220.7	0.06
71 Air Transportation	73,698	761.8	1.03
72 Rail Transportation	32,784	1134.9	3.46
73 Truck Transportation	84,031	84.6	0.10
74 Other Transportation & Storage	83,301	2350.6	2.82
75 Communications	150,053	309.5	0.21
76 Electric Power	155,701	290.3	0.19
77 Other Utilities	133,457	51.8	0.04
78 Wholesale Trade	358,682	542.7	0.15
79 Retail Trade	345,867	1096.1	0.32
80 Owner Dwelling[2]			
81 Finance, Insurance, & Real Estate	584,701	712.6	0.12
82 Health & Education[2]			
83 Amusement	52,814	71.8	0.14
84 Business Services	244,796	216.3	0.09
85 Food & Accommodation	217,577	461.2	0.21
86 Personal & Misc. Services	135,117	109.2	0.08
Unallocated		4342.1	
Total	**5,641,832**	**2,8457.4[3]**	**0.50**

1. Agriculture is not included in this study.
2. Owner dwelling and health and education industries have been removed because of the non-commercial conditions of these industries.
3. This total differs from the total of Table A2 in annex 1 for two reasons. First, several general programs subsidized the agricultural industry to a small extent ($195.5 million). We removed this amount from this table. Second, we excluded Owner Dwelling ($1,233.5 million) and Health and Education ($225.6 million).

In Canada, the estimated average rate of federal subsidies was 1.01 per cent in 1984 (Table 5). However, this estimate does not take account of tax expenditures for which only very limited information is available. As a result, the aggregate subsidy rate estimated for this study is somewhat lower than the actual rate. On the other hand, more than 50 per cent of the subsidy flow measured in this report comes from subsidies to the oil and gas industry, and most of the programs directed to the petroleum industry have been dismantled since 1984. They have been reduced by seven-eighths between 1984-85 and 1987-88. Thus, a subsidy rate in the range of 1 per cent seems to be a realistic assumption for Canada. As for the United States, we can conclude that, whatever the exact rate is, the rate for federal-non-agricultural subsidies is low. The important caveat for both countries is that more controversial subsidies such as the alleged stumpage subsidy or procurement preferences are excluded from this data, as are subsidies by provincial and state governments.

Although subsidy programs are numerous and diverse in both countries, they are, in fact, heavily concentrated in two ways. First, more than half the subsidy flow is provided by a very small number of programs. Second, subsidy programs provide disproportionate benefits to certain categories of industries.

In the United States, five programs (Job Training and Partnership Act, Expensing of Research and Development Expenditure, Industrial Development Bonds, Possessions Tax Credits and Federal Power Marketing Administration) accounted for 45 per cent of the total amount of subsidies. When we extend our review to 10 programs the total value corresponds to 70 per cent of the total subsidy flow.[23]

An even greater degree of concentration can be observed in Canada. The five most important programs (New Oil Reference Price Program, Petroleum Incentive Payments (CASH), grants for the Canadian Broadcasting Corporation, Synthetic Oil Compensation Program, and Western Grain Transportation Act) accounted for 60 per cent of total federal support, and three of these programs were directed to the oil industry. If we take into account the five next most important programs, the total corresponds to 77 per cent of the total amount of subsidies estimated in this report.[24]

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[23]The five other programs were Small Business Administration, Oil and Gas Depletion Allowance, Urban Mass Transit Grants, Foreign Sales Corporation, Intangible Drilling and Development Cost for Oil and Gas.

[24]These programs were grants for VIA Rail, Petroleum Incentive Payments (PAYE), Industrial and Regional Development Program, Special Old Oil Price program, and grants for CN Marine.

TABLE 5
CANADIAN PRODUCTION,
AGGREGATE SUBSIDY FLOW
AND
SUBSIDY RATE
FOR CANADIAN PRODUCTION SUBSIDIES, 1984

Cox - Harris - Moroz Industries	Canadian Production (Cdn. $ millions)	Subsidy Flow (Cdn. $ millions)	Subsidy Rate %
1 Agriculture[1]			
2 Forestry	7,089	20.81	0.29
3 Fishing and Hunting	860	203.79	23.70
4 Metal Mining	9,689	120.81	1.24
5 Petroleum & Gas Wells	34,454	4,466.30	12.96
6 Other Mining	5,166	5.84	0.11
7 Meat Products	8,869	7.69	0.08
8 Poultry Products	1,628	0.95	0.06
9 Fish Products	2,585	15.53	0.60
10 Dairy Products	7,319	120.10	1.64
11 Fruit & Vegetable Products	2,596	6.10	0.23
12 Grain Products	4,430	3.39	0.08
13 Confectionary Products	4,975	7.82	0.16
14 Misc. Food Products	7,325	11.33	0.15
15 Distilleries & Breweries	2,897	3.39	0.11
16 Wineries	239	0.64	0.26
17 Tobacco & Tobacco Products	1,721	0.29	0.02
18 Rubber & Rubber Products	7,318	23.96	0.33
19 Leather Footwear	1,130	5.96	0.53
20 Leather & Other Leather Products	324	1.07	0.33
21 Yarn & Cloth	996	7.10	0.71
22 Synthetic Textiles	1,530	6.33	0.41
23 Other Textiles	3,269	14.08	0.43
24 Knitting Mills	1,122	4.50	0.40
25 Clothing	4,911	12.39	0.25
26 Sawmills	6,537	35.28	0.54
27 Veneer, Plywood, Sash & Doors	2,733	9.77	0.36
28 Other Wood Products	1,078	13.65	1.27
29 Furniture	3,244	9.42	0.29
30 Pulp & Paper Products	13,693	72.07	0.53

TABLE 5 (Cont'd)

CANADIAN PRODUCTION,
AGGREGATE SUBSIDY FLOW
AND
SUBSIDY RATE
FOR CANADIAN PRODUCTION SUBSIDIES, 1984

Cox - Harris - Moroz Industries	Canadian Production (Cdn. $ millions)	Subsidy Flow (Cdn. $ millions)	Subsidy Rate %
31 Other Paper Products	5,317	9.81	0.18
32 Printing & Publishing	8,293	81.48	0.98
33 Engraving & Stereotyping	782	0.57	0.07
34 Iron & Steel	8,384	9.35	0.11
35 Steel & Pipe & Tube	1,197	1.21	0.10
36 Smelting & Refining	4,636	2.38	0.05
37 Alumina Rolling, Casting	1,411	3.67	0.26
38 Other Metal Rolling, Casting	1,410	2.76	0.19
39 Boiler & Plate	713	0.82	0.11
40 Fabricated Structural Steel	2,634	6.57	0.25
41 Metal Stamping	4,115	4.95	0.12
42 Wire & Wire Products	1,767	1.69	0.09
43 Hardware & Cutlery	1,294	6.79	0.52
44 Oth. Metal Fabricating	2,893	24.12	0.84
45 Agric. Mach. & Equip.	1,067	5.29	0.50
46 Ind. Mach. & Equip.	6,489	47.04	0.72
47 Commercial, Office & Store Equipment	2,806	22.24	0.79
48 Aircraft & Parts	2,600	131.57	5.06
49 Motor Vehicles	34,272	11.30	0.03
50 Motor Veh. Parts	10,267	25.50	0.25
51 Shipbuilding	1,076	32.69	3.04
52 Oth. Trans. Equip.	1,677	15.02	0.89
53 Small Elec. Appl.	699	0.78	0.11
54 Lge Elec. Appl.	1,547	6.46	0.42
55 Comm. Equip.	4,569	56.11	1.23
56 Electrical Industrial Equip.	1,942	7.48	0.39
57 Other Electrical Products	3,893	4.38	0.11
58 Cement & Concrete	3,207	7.82	0.24
59 Glass & Glass Products	1,282	2.77	0.22
60 Other Non-Metal Mining Products	1,333	1.90	0.14

TABLE 5 (Cont'd)

CANADIAN PRODUCTION,
AGGREGATE SUBSIDY FLOW
AND
SUBSIDY RATE
FOR CANADIAN PRODUCTION SUBSIDIES, 1984

Cox - Harris - Moroz Industries	Canadian Production (Cdn. $ millions)	Subsidy Flow (Cdn. $ millions)	Subsidy Rate %
61 Petroleum Refin.	24,932	19.98	0.08
62 Oth. Petr. & Coal Prods.	154	0.70	0.45
63 Mixed Fertilizer	319	0.95	0.30
64 Plastic & Synthetic Refin.	2,227	4.10	0.18
65 Pharmaceuticals	2,242	8.86	0.39
66 Household Cheas.	3,604	3.70	0.10
67 Industrial & Other Chemicals	11,842	43.65	0.37
68 Scientific & Professional Equipment	1,986	10.22	0.51
69 Misc. Manufacturing	3,516	8.48	0.24
70 Construction	37,754	24.72	0.06
71 Air Transportation	5,772	34.40	0.59
72 Rail Transportation	8,160	851.19	10.43
73 Truck Transportation	8,213	43.26	0.53
74 Other Transportation & Storage	17,060	375.82	2.20
75 Communications	17,843	904.31	5.07
76 Electric Power	13,627	38.12	0.28
77 Other Utilities	8,912	68.99	0.77
78 Wholesale Trade	142,531	9.05	0.01
79 Retail Trade	133,876	29.08	0.02
80 Owner Dwelling[2]			
81 Finance, Insurance & Real Estate	61,259	16.52	0.03
82 Health & Education[2]			
83 Amusement	22,142	30.84	0.14
84 Business Services	5,860	33.74	0.57
85 Food & Accommodation	18,319	14.40	0.08
86 Personal & Misc. Services	6,334	7.60	0.12
Unallocated		105.71	
TOTAL	**831,783**	**8,433.17[3]**	**1.01**

1. Agriculture is not included in this study.
2. Owner Dwelling and Health and Education industries have been removed because of the non-commercial conditions of these industries.
3. The difference between this total and total of Table A1 in annex 1comes from the removal of Owner Dwelling ($0.08 million) and Health and Education ($9.00 million).

Concentration is also evident in the allocation of subsidies among industries. In both countries, federal expenditures to subsidize industry are not distributed evenly among the various sectors of the economy.

In the United States (Table 6) the petroleum and gas industry was the most heavily subsidized. The transportation industry (other transportation and storage and rail transportation) was also heavily subsidized. Among the 83 industries studied, just 10 received almost half the total subsidy flow.[25]

In Canada, this concentration was even more substantial (Table 7), mainly because of the importance of programs directed to the oil and gas industry, which accounted for half the federal subsidies in 1984-85. Most of these programs have been dismantled since 1984. Among the other heavily subsidized industries were communications and transportation.

Impact on Trade Flows

Although the distribution of subsidies across industries in dollar amounts is of interest, the effect of subsidies on production costs is more relevant in assessing their impact on production and trade flows. The effect of subsidies on production costs can be evaluated very roughly using the subsidy rates estimated in this report.

A detailed review of the impact of subsidies on trade flows is beyond the scope of this report. Thus, we limit our comments to a general assessment for the most heavily subsidized industries.

Moreover, it should be mentioned that the impact of subsidies on trade flows is not always quite clear. For instance, some regional development programs may not have any impact on overall production costs and may simply offset the higher costs involved in shifting from preferred locations. Furthermore, subsidies may increase the number of firms in an industry, which can, in certain circumstances, raise overall production costs.

In the United States, 13 industries had a subsidy rate above one per cent (Table 8); eleven were in the same position in Canada (Table 9). In general, subsidies less than one per cent of production cost are unlikely to affect international trade or domestic production significantly.

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[25] Of the 86 industries included in the Cox-Harris-Moroz classification, we did not consider Agriculture, Owner Dwelling and Health and Education.

Table 6
Distribution of U.S. Federal Subsidies
to Business
Top Ten Industries
FY 1984

Industry	Millions of U.S. dollars	Percentage of Total	Cumulative Percentage of Total
Petroleum & Gas Wells	3082.1	10.83	10.83
Other Transportation & Storage	2350.6	8.26	19.09
Rail Transportation	1134.9	3.99	23.08
Pharmaceuticals	1114.7	3.92	27.00
Retail Trade	1096.1	3.85	30.85
Communications Equipment	983.6	3.46	34.31
Other Mining	953.7	3.35	37.66
Air Transportation	761.8	2.68	40.34
Forestry	751.3	2.64	42.98
Finance Insurance & Real Estate	712.6	2.50	45.48

Table 7
Distribution of Canadian Federal
Subsidies to Business
Top Ten Industries
1984-85

Industry	Millions of Cdn. dollars	Percentage of Total	Cumulative Percentage of Total
Petroleum & Gas Wells	4466.30	52.96	52.96
Communications	904.31	10.72	63.68
Rail Transportation	851.19	10.09	73.77
Other Transportation & Storage	375.82	4.46	78.23
Fishing & Hunting	203.79	2.42	80.65
Aircraft & Parts	131.57	1.56	82.21
Metal Mining	120.81	1.43	83.64
Dairy Products	120.10	1.42	85.06
Printing & Publishing	81.48	0.97	86.03
Pulp & Paper Products	72.07	0.85	86.88

Table 8
Industries with a Subsidy Rate
Above One Per Cent
FY 1984 - USA

Industry	Subsidy Rate
Forestry	11.93
Shipbuilding	5.80
Smelting & Refining	5.55
Metal Mining	4.38
Pharmaceuticals	4.00
Rail Transportation	3.46
Other Transportation & Storage	2.82
Other Mining	2.42
Petroleum & Gas Wells	2.23
Electrical Industrial Equipment	1.80
Wineries	1.05
Air Transportation	1.03
Scientific & Professional Equipment	1.02

The subsidy rate of the forestry industry in the United States was clearly large enough (11.93 per cent) to influence trade and to lower imports from Canada. To a lesser extent, the same situation applied in smelting and refining (5.55 per cent), metal mining (4.38 per cent), other mining (2.42 per cent) and petroleum and gas wells (2.23 per cent). However, it should be noted that Canada also subsidized the oil and gas industry during 1984-85. Also U.S. federal subsidies could contribute to increased exports to Canada for industries like pharmaceuticals (4 per cent), electrical industrial equipment (1.80 per cent), wineries (1.05 per cent) and scientific and professional equipment (1.02 per cent). For shipbuilding, the influence on Canada-U.S. trade is more difficult to assess because this U.S. industry is not competitive with some overseas suppliers. Thus, Canadians are not likely to purchase U.S. ships and U.S. trade barriers impede exports of ships built in Canada. Subsidies to rail transportation and air transportation have only modest direct effects on trade, because the subsidies are for passenger travel.[26] Similarly subsidies to Via Rail, which represent most of direct subsidies to rail transportation in Canada, are for passenger travel and have no direct effect on trade flows.

[26]The largest part of the U.S. subsidy to rail transportation is a subsidy to Amtrak.

Table 9
Industries with a Subsidy Rate
Above One Per Cent
1984-85 - Canada

Industry	Subsidy Rate
Fishing & Hunting	23.70
Petroleum & Gas Wells	12.96
Rail Transportation	10.43
Communications	5.07
Aircraft & Parts	5.06
Shipbuilding	3.04
Other Transportation & Storage	2.20
Dairy Products	1.64
Other Wood Products	1.27
Metal Mining	1.24
Communication Equipment	1.23

In Canada, the subsidy rate of the fishing and hunting industry (23.7 per cent) was clearly large enough to affect trade flows. However, two points about subsidies to the fishing industry are worth noting. First, about half the subsidies reflected federal contributions to Fishermen's Special Unemployment Insurance benefits. In the U.S. countervailing duty case Fresh Atlantic Groundfish, Fisherman's Unemployment Insurance was not considered to be a countervailable subsidy because the contribution rate was the same as in other industries. Second, in 1984, the Atlantic groundfish industry benefited from special financial assistance intended to facilitate restructuring of the industry.

As mentioned previously, most of the programs directed to the petroleum and gas wells industry have been dismantled; the remaining level of subsidies are probably not very different from the U.S. level. Moreover, it is questionable whether the extensive Canadian subsidies to the petroleum industry in 1984 actually provided net benefits to the industry because many of the subsidies were instituted to offset the effects of price regulations imposed as part of the National Energy Program.

Canadian government subsidies to the aircraft and parts industry (5.06 per cent) were large enough to influence trade flows between Canada and the United States. To a lesser extent, the same situation applied in the miscellaneous wood products, communication equipment and metal mining industries. However, subsidies for metal mining were directed principally to coal mines. As government subsidies to the coal mining industry are concentrated in Cape Breton Island, and since Cape Breton coal is not exported to the United States, only imports from the United States could be affected by these subsidies.

Assessing the impact on trade flows of federal support to the shipbuilding and other transportation and storage industries is more difficult. In 1984 the Canadian shipbuilding industry was heavily dependent on government assistance for its survival. Imports from the United States may have been affected by these subsidies, but the United States is not competitive with some overseas suppliers. On the other hand, exports were probably not affected by federal subsidies because U.S. import restrictions are a significant barrier to imports from Canada and because Canadian ships are not priced competitively with some overseas suppliers. Since 1984 support programs for Canadian shipbuilding have been curtailed.

With regard to the balance of the transportation and storage industry, it should be noted that the level of subsidy is almost the same in Canada and the United States. For the three remaining heavily subsidized industries, it is likely that neither exports to, nor imports from, the United States were affected by federal subsidies. Dairy products are protected by quantitative restrictions on both sides of the border. Subsidies to the Canadian Broadcasting Corporation, which receives virtually all the communications industry subsidies, have had little or no effect on Canada-U.S. trade. Canadian content requirements imposed by the CRTC restrict the import of U.S. programming, and exports of Canadian programs are so infrequent that subsidies are unlikely to be a major factor.

Thus, it appears that only a small number of industries in both countries had a subsidy rate large enough to have an effect on trade. In addition, some of the most heavily subsidized industries had none of their output traded internationally, while in most of the other industries, subsidies were more likely to lower imports than to increase exports. Thus, we can conclude that, in both countries, federal non-agricultural subsidies had only a marginal impact on trade between Canada and the United States.

Updating

Updating of detailed data for 1984 on the incidence by industry of subsidies would require further extensive analysis of subsidy flows to individual industries in both countries. Nevertheless some general observations can be made about trends in subsidy levels in Canada and the United States.

First, most of the programs directed to Canada's oil industry have been dismantled. Moreover, some support to the shipbuilding industry has also been discontinued. Even though some subsidy programs were expanded between 1984-85 and 1987-88 (fishermen's unemployment insurance benefits from $159 million to $229 million, regional industrial programs from $210 million to $364 million), the overall level of federal subsidy declined substantially in Canada during this period.

To corroborate this statement, we examined subsidy flows as captured in the National Accounts from 1981 to 1988. Before drawing any conclusions, it should be noted that National Accounts figures differ from our estimates. This discrepancy arises in part from the inclusion of Canada Mortgage and Housing and Other Federal Housing in the National Accounts. At the same time, grants such as Via Rail, CN Marine, CBC capital

grants, fishermen's unemployment insurance, duty remission, and payments via the provinces, among others, are not included in National Accounts.[27]

From Table 10 we can see that the amount of federal subsidies declined between 1984 and 1988, from $10,842 million to $8,783 million.[28] This confirms our initial analysis and shows that the elimination of major energy programs has contributed to a decrease in the federal subsidy flow in Canada.

Finally, agriculture is not included in this study, whereas subsidies to this sector are included in National Accounts figures. Moreover, during the same period, the amount of transfer payments made by Agriculture Canada increased considerably: from $845 million in 1984-85 to $2,460 million (Source: Public Accounts). This reinforces the conclusion that the level of subsidies to industries other than agriculture decreased over the last four years.

In the United States, the change has been less dramatic, but the trend parallels the reduction of federal subsidies and discontinuation of major federal programs in Canada. The Reagan Administration sought the elimination of many business subsidy programs because of a belief in a free-market economy, an interest in privatizing federal programs, concern about the deficit, and support for tax reform. Congress has resisted the Administration's efforts, although Congress has been increasingly concerned about the size of the federal budget deficit. As a result, subsidy programs have come under increased pressure, and expenditures for many of these programs have declined significantly in recent years.

Table 10
Federal Government Subsidies
and Capital Assistance to Business
Canada 1981 to 1988
(millions of Cdn. dollars)

	1981	1982	1983	1984	1985	1986	1987	1988
Subsidies	6634	5777	5662	7473	6368	4804	7037	7116
Capital Assistance	900	2553	3599	3369	2984	2448	1867	1667
Total	**7534**	**8330**	**9261**	**10842**	**9352**	**7252**	**8904**	**8783**

Source: National Accounts.

[27] Payments under crop insurance and some other agricultural programs are considered transfers to the provinces in the National Accounts.

[28] Average of the first three quarters of 1988 at annual rate.

To study the evolution of subsidy programs in the United States between fiscal year 1984 and fiscal year 1988, we examined the official figures in the U.S. budget and in Special Analyses. The amount of current and capital grants for all programs was $7,915 million for fiscal year 1984.[29] In 1988, these same programs amounted to $9,703 million.[30] This means that despite steady pressure to reduce the deficit, grant programs increased by more than 20 per cent during the fiscal years under review. By contrast tax expenditures decreased during the same period, mainly because of tax reform. From fiscal year 1984 to fiscal year 1988, the amount of tax expenditures for most of the programs considered in our study[31] decreased from $15,480 million to $12,225 million.[32] With regard to loans and loan guarantees, the reduction was even more significant. Between fiscal year 1984 and fiscal year 1988, the estimated subsidy cost of these programs[33] declined from $964 million to $365 million.[34]

Overall it appears that the absolute level of subsidy declined between 1984 and 1988; as a result, the subsidy rate has declined relative to economic activity. It should also be mentioned that the forthcoming U.S. budget for 1989-1990 proposes even more drastic measures to reduce the subsidy level of U.S. business. For instance, the 1990 budget proposes termination of several subsidy programs, such as payments to air carriers for providing services to certain communities, the Appalachian Regional Commission and grants to Amtrak. Similarly, the Administration proposes termination of Small Business Administration's disaster assistance program, as well as major reforms in the repayment practices of the Power Marketing Administration, but the final spending package will be determined by the U.S. Congress.

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[29] A complete list of programs is available upon request.

[30] See Annex 3 for additional details.

[31] Our estimate includes a large number of programs listed in the statistical annex available on request. We found updated data for 90 per cent of the total amount estimated in our study.

[32] These figures are outlay equivalent estimates given by Special Analysis G of the U.S. budget (various issues).

[33] Because the official estimate of the outlay equivalents of subsidy flows from Economic Development Administration is nil in 1984, our figures include only the Small Business Administration loan and loan guarantee programs and the Federal Ship Financing Fund.

[34] Special Analysis F of the U.S. budget (various issues).

IV THE FUTURE AGENDA

The issue of subsidies and countervailing duties has been contentious between Canada and the United States ever since the Michelin Tire case in 1973. The FTA mandates future negotiations on subsidies and anti-dumping and countervailing duties. The subsidy and countervailing duty issues are the most politically sensitive because they touch on the domestic policy decisions of Canada and the United States.

A review of the U.S. countervailing duty cases against Canadian products indicates that subsidy margins tend to be low in the industrial sector. The dramatic exception is the 1986 Softwood Lumber Case which found a preliminary determination of subsidy in the amount of 15% through inclusion of the controversial stumpage subsidy. Since there have been relatively few U.S. countervailing duty cases taken against industrial products from Canada and there have been no Canadian cases against U.S. exports, one might wonder whether there are industries receiving significant subsidies in either countries which have not been subject to countervailing duty investigations.

The Evidence

The evidence examined in this study with respect to federal subsidies and assistance measures for the non-agricultural sectors of the economies of the United States and Canada suggest that subsidy margins are consistently low in most industries. Data for 1984 indicate that out of 83 industries, only 5 in Canada and 4 in the United States had subsidy rates greater than 5%, while an additional 6 industries in Canada and 9 in the United States had subsidy rates less than 5% but greater than 1%.

Although comparable data are not available after 1984, both federal governments have acted to reduce non-agricultural subsidies import and industries. In Canada, the complicated web of energy sector price controls and subsidies under the national energy program has been completely dismantled and in the United States industrial development bonds have been curtailed through tax reform. Furthermore, among the remaining heavily subsidized industries some had no output which was internationally traded and for others, the result of the subsidies is more to lower imports than to increase exports.

In both countries, explicit federal subsidies have only a modest impact on non-agricultural trade between Canada and the United States, thus one would not expect a spate of successful countervailing duty actions in the industrial sector leading to the imposition of substantial countervailing duty of significant amounts of bilateral trade. However, the risk of harassing actions continues under the existing trade laws of both countries and could become a political problem.

Before definitive conclusions can be reached, however, on the incidence of subsidies in the two countries, further work is required on the subsidy programs of provincial and state governments. Also significant, and most controversial, are certain alleged indirect subsidies. It was the stumpage subsidy that produced the 15% duty in the softwood lumber case. Similarly, if defence procurement were included as a subsidy measures, than the average U.S. federal non-agricultural subsidy rate would amount to roughly 2% and would exceed the equivalent Canadian average subsidy rate including defence procurement preferences. (See Annex 3)

Interaction with Multilateral Negotiations

The interrelationships between the GATT arrangements and the provisions of the Canada-U.S. Free Trade Agreement are important. Although the GATT subsidies code is extremely vague in the characterization of domestic subsidies that can be subject to countervailing duties, the GATT subsidies code committee would almost certainly rule out the application of countervailing duties against broad-based social policies.[35] Moreover, Canada and the United States are now renegotiating the GATT antidumping and subsidies codes as part of the Uruguay Round of multilateral negotiations. Neither Canada nor the United States may wish to wait until the Uruguay Round is concluded before entering into bilateral negotiations, but the prospects on the multilateral front will influence the bilateral process.

The interaction between the GATT negotiations and the bilateral process is particularly important in the case of agriculture. More than half the U.S. countervailing duty cases against Canadian exports and the only Canadian countervailing duty action against U.S. exports involved agricultural products. This is not surprising, since data prepared by the Organization for Economic Cooperation and Development indicate substantial subsidies in the agricultural sector in both countries. Canada and the United States have agreed to seek resolution of the difficult issues of agricultural subsidies and trade barriers in the Uruguay Round of multilateral negotiations, because the agricultural subsidies and trade barriers of third countries have substantial disruptive consequences for North American agriculture.[36]

Similarly, the role of third country subsidy practices may have asymmetric implications for large and small countries, depending upon the market structure and pattern of trade

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[35] See comments by the panel of experts assembled by the Financial Post, November 12-14, 1988, p. 21.

[36] For a discussion of issues in the agricultural negotiations in the Uruguay Round, see William Miner and Dale Hathaway (eds.), World Agricultural Trade: Building A Consensus, (Washington and Halifax: Institute for International Economics and Institute for Research on Public Policy, 1988).

barriers in an industry. For example, in some agricultural commodities where Canada and the United States are selling fungible commodities into offshore markets, they may be equally reluctant to control subsidy practices on a bilateral basis and instead may prefer multilateral disciplines. On the other hand, for differentiated manufacturing products with more segmented markets, the small country may attach higher priority to obtaining secure access to the larger market, while the larger country may attach a higher priority to multilateral disciplines on the use of subsidies.

Bilateral Approaches

In considering the prospective bilateral negotiations about subsidies and unfair trade laws that are provided for in the Canada-U.S. Free Trade Agreement, it must be remembered that both countries maintain their rights and obligations under the GATT and the Tokyo Round Subsidies Code. Furthermore, both countries are currently engaged negotiations on subsidies and countervailing duties in the Uruguay Round . Although the bilateral negotiations on subsidies rules are likely to be difficult, both countries will agree only to a bilateral code that is mutually beneficial and improves on the GATT rules at the end of the Uruguay Round. Thus, Canadians fear that broad-based social programs will be attacked in a bilateral Canada-U.S. subsidies code are without foundation. Any Canadian government would choose to continue with the GATT rules as they stand after the conclusion of the Uruguay Round if the United States sought to treat public health care as a trade distorting subsidy.

At the same time, the negotiation of rules with respect to subsidies and antidumping and countervailing duties was difficult in previous Rounds of GATT negotiations and there is no guarantee that the Uruguay Round will yield a dramatic breakthrough on these issues. Thus, bilateral negotiations on subsidies and countervailing and antidumping duties will likely re-emerge as a major issue once the Uruguay Round is completed.

The bilateral negotiating options were examined during the Canada-U.S. free trade negotiations and will be the subject of continuing discussion.[37] One option is the national treatment approach. If Canada and the United States could agree on rules and a regulatory regime circumscribing the use of subsidies and providing for reciprocal enforcement of

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[37] See Murray G. Smith with C. Michael Aho and Gary Horlick, Bridging the GAP: Trade Laws in the Canadian-U.S. Negotiations (Toronto and Washington D.C.: Canadian American Committee, 1987). Current examinations of options include: Michael Hart, "The Future on the Table", unpublished paper, presented at a conference at the University of Ottawa, May 5, 1989; Jean Anderson and Jonathan Fried, "Subsidies and Countervailing Duties in the United States-Canada Free Trade Agreement" in The U.S./Canada Trade Agreement Judith Hippler Bello and Homer Moyer (eds.), (New York: Practising law Institute, 1989) and Gary Horlick and Debra Steger, in a paper for publication in Peter Morici (ed.) Living with Free Trade forthcoming from the Council on Foreign Relations.

antitrust laws against price discrimination, then the countervailing and antidumping laws could be dismantled between Canada and the United States. This is the approach adopted within the European Community.

Other options would involve less ambitious, more incremental approaches including:

- implementing more modest limitations on the use of subsidies in conjunction with limitations on the application of countervailing duties;
- developing agreed criteria for injury determination;
- revising antidumping laws in accordance with competition policy standards; and
- elaborating joint institutional arrangements.

The national treatment approach was explored in the Canada-U.S. free trade negotiations, but it raises sovereignty concerns for both countries. The evidence considered in this paper suggests it may prove more feasible to develop common bilateral incremental approaches in the industrial sector, since the level of non-agricultural subsidies by the two federal governments is relatively modest.

Conclusion

Since both countries retain all rights and obligations under the GATT and Tokyo Round codes, there are no grounds for concern that broad-based social programs such as Canada's medicare system will be attacked in the future bilateral negotiations of trade rules. Furthermore, the bilateral agenda for negotiations on subsidies and antidumping and countervailing duties will be influenced by the progress of the Uruguay Round GATT negotiations, particularly in agriculture where both countries have substantial subsidies.

Since direct federal subsidies in the non-agricultural sectors of both economies average less than one per cent of the value of production and have a modest effect on bilateral trade, it should prove possible to develop bilateral rules for subsidies and countervailing duties. Although provincial and state subsidies need to be examined as well, the most controversial negotiations will involve indirect subsidies including procurement preferences and alleged resource pricing subsidies such as stumpage.

ANNEX 1

COMPARISON OF CANADIAN AND U.S. NON-AGRICULTURAL FEDERAL SUBSIDY PROGRAMS

The purpose of this annex is to assess, by type, U.S. and Canadian federal programs that subsidize business in both countries and to present the methodology on which Chapter III is based. Governments support domestic industries through a wide range of microeconomic policies and industry-specific programs. They provide direct assistance to industries through cash grants, tax expenditures, loans and loan guarantees, regulation and government services.

Type of Subsidies

Although it is difficult to classify the various types of assistance provided, we have used the following categories to describe the type of subsidy:

Grants: Programs providing direct monetary assistance to a business for the purpose of enhancing its economic viability.

Direct Loans: Programs under which the federal government lends money directly to a business, possibly at concessionary interest rates.
Loan Guarantees: The federal government guarantees loans to a business that are provided through normal private sector channels.

Tax Expenditures: The government provides financial assistance to a business through a tax benefit, deduction, or credit rather than a direct cash payment.

Duty Remission Programs: Programs providing preferential duty treatment to local exporters or importers.

Information on grants, loans, tax expenditures and duty remission programs is quite easily obtained. It is much more difficult to secure data on the following types of programs:

Government Insurance: Programs under which the government insures a business against certain types of losses. In some instances the government collects premiums as a private insurance company would, while other programs entail no premiums. The latter programs are funded through government revenues and fees.

Below-Cost or Free-of-Charge Service: Programs providing services, commodities, or production inputs to a business at less than their fair market value.

Government Purchases or Price Guarantees: Government supports or assists a business through direct purchases or price guarantee arrangements; the government is a purchaser of last resort or guarantees a specified price through deficiency payments.

Price Regulation and Cartel: Programs that benefit an industry by enforcing a restrictive marketing arrangement, or that regulate the price of commodities.

Subsidies can also be categorized as current and capital subsidies. The former reduce production costs in the period when they are given, while the latter provide a flow of subsidies over time by reducing the cost of acquiring capital goods. In this report, estimates of all subsidies are made on a current equivalent basis.

Source and Methodology

To conduct this research, we relied on four studies of government subsidy programs:

- An Annotated Inventory of Federal Business Subsidy Programs in the United States, by Ann A. Michel, Larry I. Good, Terry Bolger, Ellen Sweet, W. Martin Taylor and Andrew R. Moroz (Institute for Research on Public Policy, May 1987).
- Current Subsidy Estimates of Selected U.S. Production Subsidies, by Ira P. Kaminow, Government Research Corporation (prepared for the Institute for Research on Public Policy, April 1987).
- Grant Support and Trade Protection for Canadian Industries, by Andrew R. Moroz and Stephen L. Brown (Institute for Research on Public Policy, April 1987).
- Statistical Annex, by Jean-François Bence (Institute for Research on Public Policy, April, 1989).

One of the major obstacles in this research is that each study had a different scope. For instance, the Canadian study by Moroz dealt only with grant support, whereas the Kaminow report focused only on certain subsidy programs. Despite these differences, we can summarize a common methodology.

Grant programs are the most straightforward to evaluate. For the United States, we will use the two U.S. studies, which capture all the U.S. grant programs. For Canada, the Moroz study is a complete review of all the Canadian grant programs. Moreover, the Canadian study gives a more precise analysis of these programs by establishing different categories. Current subsidies are divided between:

- federal current production grants,
- federal labour grants,
- other federal grants, and

- federal conditional indirect grants, which are grants provided to one industry - the recipient industry - for the explicit purpose of subsidizing a second, targeted, industry or group of industries - the beneficiary industry.

In the same way, capital subsidies are divided between:
- construction and natural resource development grants,
- capital equipment grants, and
- research and development grants.

Although export grants could be considered grants, we have used a different category, grouping them with Duty Remission Programs and Free Trade Zones.

Direct loans and loan guarantees are more difficult to assess. First, it should be noted that Canadian and U.S. subsidy studies treat federal loans and guarantees differently. In the United States, it is assumed that the subsidy provided by loans and loan guarantees is equal to the difference between the rate of interest actually charged on the loan and the market rate of interest that would be applied in the absence of the loan or guarantee.[1] In Canada, such information is not available. Therefore, the implicit subsidy values of loans and loan guarantees have been evaluated by two different methods. Some, contained in the Moroz study, have been captured through the payment of interest or the payment of liabilities or loan losses from defaulted loans or loan guarantees. For others, we have applied an estimated default rate on the amount of the loan or the guarantee.

At present, reasonably comprehensive data on tax expenditures are available only for the United States. The Treasury Department Office of Tax Analysis (OTA) prepares estimates of tax expenditures on a revenue loss basis and on an outlay-equivalent basis. The former measures the net revenue loss to the government of the tax subsidy program. The principal difference between the two is that the outlay-equivalent basis grosses up estimates to include the tax that would have been paid by program beneficiaries if a direct payment taxable to the beneficiary were to replace the tax expenditure. Kaminow uses estimates based on the outlay-equivalent approach for two reasons. First, it allows comparability with direct outlay data. Second, it separates the industry impacts more effectively. When a program results in a tax expenditure for one industry and a tax increase for another, the revenue loss basis nets the tax expenditure against the increased tax. This reduces the apparent subsidy to the favoured sector.

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[1] The loan rate that would prevail in the open market is an estimate.

Analysis of the aggregate subsidy flow in Canada and in the United States[2]

Subsidy programs can be divided into two broad groups: current subsidy programs, which directly subsidize the producer's current or variable costs of producing and distributing output, and capital subsidy programs, which indirectly subsidize current costs by reducing the producer's cost of capital goods and technological assets used to produce and distribute output.

For most current subsidies in Canada and the United States, it was possible to use official estimates. For instance, official estimates prepared as part of the U.S. federal government budget process correspond quite closely to the realized value of the subsidy to the recipient.

Official publications are less useful, however, for estimating the value of capital subsidies. Especially in the United States, budget documents that do contain estimates of capital subsidies present them sometimes on a cash outlay basis and in other instances on a when-earned or when-realized basis.

In this study, all estimates of subsidies are made on a current subsidy equivalent basis. This means that capital subsidies are adjusted to put them on a comparable basis with current subsidies. Consistent with this approach, subsidies estimated by Kaminow[3] are assigned on a when-realized basis. The when-realized accounting method requires a calculation of the subsidy flow from the existing stock of capital. Moreover, because laws change over time, the subsidy flow can vary with capital stock vintage. This suggests the need for estimates of 1984 capital stocks of subsidized assets by vintage. In virtually all cases, Kaminow constructs his own estimates of capital stock of a wide variety of assets. In each case, he uses a perpetual inventory approach to develop annual expenditures into a capital stock estimate for 1984. This approach allows him to estimate the value of capital stock remaining in 1984 from each prior year. All data are converted to 1984 prices using the GNP fixed-weight price deflator. Capital is assumed to depreciate at an exponential rate. This assumption means assets never fully wear our. This problem is resolved by arbitrarily assuming assets are retired from the capital stock when they are approximately 90 per cent depreciated.

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[2] A comprehensive list of the programs and some indications on the methodology used are available in an Annex which can be obtained by writing the Internatioal Economics Program, Institute for Research on Public Policy.

[3] Kaminow made his own estimates of the value of subsidies on a consistent when-realized basis where none were available from official sources.

Grants

Comparing the amount of grants in each country shows some interesting results (Table A1 and Table A2). First, it should be noted that in local currencies, the amount of grants was about the same in Canada as in the United States (CDN $8,239 million versus US $8,289.5 million).[4] Considering the relative size and economic activity of each country, it appears that grants play a much greater role in Canada than in the United States. However, this does not necessarily mean that Canadian industries are subsidized more heavily; all types of subsidies would have to be considered before such a conclusion could be drawn.

TABLE A1
ESTIMATES OF
AGGREGATE SUBSIDY FLOW IN CANADA[1]
1984-85
(millions of Cdn. dollars)

	CURRENT	CAPITAL	TOTAL
Grant	5144.60	3095.24	8239.84
Outlay Equivalent of Subsidy Flow from Loans and Loan Guarantees	100.61	-	100.61
Outlay Equivalent of Subsidy Flow from Tax Expenditures	n.a	n.a	n.a
Tariff and Export Programs	101.80	-	101.80
Below-Cost Service	n.a	n.a	n.a
Total	**5347.01**	**3095.24**	**8442.25**

1. Agriculture not included.

[4] Except when specified, Canadian data will be given in Canadian dollars and U.S. data in U.S. dollars.

TABLE A2
ESTIMATES OF
AGGREGATE SUBSIDY FLOW IN THE UNITED STATES
1984
(millions of U.S. dollars)

	CURRENT	CAPITAL	TOTAL
Direct Grant	6843.5	1446.0	8289.5
Outlay Equivalent of Subsidy Flow from Loans and Loan Guarantees	-	2376.8	2376.8
Outlay equivalent of Subsidy Flow from Tax Expenditures	5592.0	10025.7	15617.7
Tariff-Related Programs	362.9	-	362.9
Below-Cost Service	3465.1	-	3465.1
Total	**16263.5**	**13848.5**	**30112.0**

1. Agriculture not included.

In the United States, direct spending is less important than tax and credit programs as a means of assisting business; in 1984 grants accounted for about 25 per cent of total subsidy estimates. The emphasis on reducing federal expenditures has contributed to a shift away from direct payments and direct loans and toward greater use of loan guarantees and other forms of assistance that minimize the outlay of federal funds. By contrast, in Canada, the trend has been toward more grant programs in place of loan and guarantee programs.

Table A3 breaks down Canadian current grant programs under the several categories used in Canada. With regard to current production grants operating grants for the Canadian Broadcasting Corporation (CBC) was the largest program ($808 million). The two other largest beneficiaries were Via Rail ($446 million) and CN Marine ($164 million). Thus, it appears that subsidies to Crown corporations accounted for more than two-thirds of total direct current production grants. Turning to labour grants the largest program was Fishermen's Unemployment Insurance benefits ($158 million), which accounted for nearly

half of total labour grants. In all industries other than the fishing, hunting and trapping industry, labour grants were less than 1 per cent of wage and salaries.

In addition to current production and labour, the federal government subsidizes marketing costs, transportation costs and other specific input costs. Among these other federal current grants the largest program was the Natural Gas Transportation Assistance Program, which subsidized the cost of moving natural gas for natural gas utility companies.

TABLE A3
ESTIMATES OF
FEDERAL SUBSIDIES IN CANADA[1]
1984-85
(millions of Cdn. dollars)

	TOTAL
Current Subsidies	
Production Grants	1756.85
Labour Grants	369.98
Implicit Subsidy Value of Loans and Loan Guarantees	100.61
Other Direct Current Grants	60.94
Conditional Indirect Grants	2956.82
Performance-Based Duty Remission	31.09
Export Grants	70.71
Total Current Subsidies:	**5346.90**
Capital Subsidies	
Construction and Natural Resource Development Grants	2147.73
Capital Equipment Grants	648.23
Research and Development Grants	299.28
Total Capital Subsidies:	**3095.24**
Total	**8442.25**

1. Agriculture not included.

As discussed earlier, a few federal programs provide grants to one industry for the explicit purpose of subsidizing a second industry. Although not numerous, these programs were important in terms of dollars. Most conditional indirect subsidy programs involve subsidizing either transportation costs for a variety of industries or crude oil input costs of higher-cost Canadian oil. Three of these programs are part of the federal government's package of regional development programs. The Maritime Freight Rates Assistance Act and the Atlantic Region Freight Rate Assistance Act subsidize transportation within eastern Canada and to markets in other parts of Canada. The third program, also a long-standing program, is the Cape Breton Development Corporation which subsidizes the operating costs and capital costs for certain industries on Cape Breton Island. In addition to grant programs, one non-grant current subsidy program is included in this category. This is the postal rate differential for Canadian periodicals and magazines; it operates as a conditional indirect subsidy by providing lower postal rates for periodicals and magazines published and printed in Canada.

During 1984-85, the federal government disbursed $3.09 billion in capital grants to Canadian industries. Of this amount, $2.14 billion was paid to subsidize capital construction and natural resource development. Another $648 million was provided for capital equipment investment, and $299 million was used to subsidize research and development. The single largest capital grant program was the Petroleum Incentive Program (PIP) for oil and gas exploration by the petroleum and gas wells industry. This Energy, Mines and Resources (EMR) program accounted for 55 per cent of total federal capital grants. The next largest program was the Industrial and Regional Development Program which disbursed $210 million in construction, capital and R&D grants across most industries. The third most generous program was the Natural Gas Lateral Program under which EMR disbursed a total of $171 million for the construction of lateral natural gas pipelines. Among other important programs were Capital Grants for CBC ($92 million), Rehabilitation of Prairie Branch Railway Lines ($133 million) and Purchase of Grain Hopper Cars ($115 million).

Current grants were even more important relative to capital grants in the United States ($ 6.8 billion for current versus $ 1.5 billion for capital grants). With regard to current grants, the largest program was the Job Training and Partnership Act ($3190 million), which accounted for more than 45 per cent of total current grants. The other two most generous programs were Urban Mass Transit Grants ($1690 million) and contributions to Amtrak ($1119 million).

Turning to capital grants, the largest program was the Airport Improvement Program ($694 million). Another substantial program was the Construction Differential Subsidies for U.S. shipping industry ($264 million).[5] To promote the development and maintenance of the U.S. merchant marine fleet and to encourage the construction of ships in U.S.

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[5] The figure for the Airport Improvement Program grant is the actual 1984 cash payment, whereas the figure for the Construction Differential Subsidy is Kaminow's estimate of 1984 subsidy flow from previous years' grants.

shipyards, the 1936 Merchant Marine Act authorizes the granting of financial aid to equalize the cost of construction of a new ship in a U.S. shipyard with the cost of constructing the same ship in a foreign shipyard. The government pays up to 50 per cent of the cost of construction on competitive contracts and 35 per cent on negotiated contracts.

At this stage of the study, it is interesting to draw some parallels between the allocation of grants in each country. First, it should be noted that the transportation sector is a significant target of grant programs in Canada and the United States. Both Via Rail and Amtrak are heavily subsidized by their respective federal governments. The relative level of labour grants is also similar between the two countries. However, some important differences can also be underlined. In 1984, the Canadian energy industry benefited from grant programs to a large extent, whereas maritime industries were the major beneficiaries of cash grants in the United States. Another dissimilarity results from the greater role of public enterprise in Canada as compared with the United States. Crown corporations in Canada receive a substantial part of total grants. For example, because of the way Canada supports public broadcasting, a large amount of grant support goes to the communications industry in Canada.

Loans and Loan Guarantees

The method used to evaluate the amount of loan subsidy is different in the United States and Canada; in fact, four different methods were used to assess loans and loan guarantees in this study. The implicit subsidy value of the first five Canadian programs corresponds to payment of interest or payment of liabilities or loan losses from defaulted loans or loan guarantees. For the other program (Federal Business Development Bank), a default rate was estimated and applied on the amount of loans and loan guarantees. In the United States, Special Analysis F of the budget provides some estimates of the outlay equivalents of subsidy flow.[6]

In these circumstances, we are very cautious in making comparisons. Nevertheless, it appears that the objectives of loan and loan guarantee programs are relatively similar in both countries: to assist small business and to promote international trade.

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[6] The subsidy provided by loans and guarantees is equal to the difference between the rate of interest actually charged on the loan and the market rate of interest that would be applied in the absence of the loan or guarantee. To determine the unobserved market interest rate, Special Analysis F uses the rate on a market security it deems similar to the government loan in question. The Special Analysis F technique is to calculate the capitalized stream of subsidies to be earned on new direct and guaranteed loans made in 1984 (i.e., they estimate the subsidy on a when-earned basis). For capital subsidies, Kaminow made his own estimates of the outlay equivalents of the subsidy flows, in order to put things on a when-realized basis.

In Canada, the most important program was the Federal Business Development Bank ($35 million). In measuring the subsidy flow, Export Development Corporation loan programs were not taken into account because we have no evidence that these loans are available for bilateral trade between Canada and the United States. Similarly, Export Import Bank loans and loan guarantees in the United States were not considered. In the United States, the most generous programs were those of the Small Business Administration ($1895 million).

To get a different perspective on the respective importance of loans and loan guarantees in each country, we compared the amount of federal loan and loan guarantee programs as a percentage of GDP.[7] In Canada, this percentage was 0.7 per cent in 1984. Thus, the relative significance of loan and loan guarantee programs had declined since 1978-79, when they represented 1.9% of GDP. As discussed earlier, this reduction in loan and guarantee programs reflects a shift in emphasis in Canada toward grant programs. For example, the Enterprise Development Program, which operated primarily through loans and guarantees, became the Industrial and Regional Development Program, which is almost entirely grant-oriented.

U.S. loan and loan guarantee programs were less important relative to the U.S. economy than Canadian programs were to the Canadian economy. U.S. non-agricultural loans accounted for 0.1 per cent of GDP, compared to 0.3 per cent in Canada. Similarly, non-agricultural loans plus export loans were 0.3 per cent of GDP in the United States in 1984-85, compared to 0.7 per cent in Canada.

To improve the basis for comparisons, additional research should be conducted in Canada on loan and guarantee programs, so that outlay equivalents of subsidy flow can be estimated on the same basis as in the United States.

Tax Expenditures

A tax expenditure is defined in this study as a provision giving special treatment to specific industries or regions, that is, treatment that is more generous than the equivalent provision in a reference tax law. Thus a tax provision is considered to be a tax expenditure only if it is a deviation from a broader principle written into the law.

In the United States, the Treasury Department's Office of Tax Analysis (OTA) prepares estimates of tax expenditures on a revenue loss basis and on an outlay equivalent basis (Special Analysis G). As discussed earlier, we use the outlay equivalent approach.

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[7] Export Development Corporation and Export Import Bank loans and loan guarantees are included here.

Unfortunately, in Canada, no such data are available,[8] and further studies are necessary to assess the outlay equivalents of tax expenditures in Canada. Moreover, Kaminow uses his own estimates of outlay equivalents of tax expenditures for capital subsidies. He considers the subsidy flow for tax expenditures to equal the product of the subsidized capital stock and the difference between the required rate of return under the current tax system and under a reference tax system.

With regard to current subsidies the major program was the U.S. possessions tax credits ($2,180 million).[9] This credit allows corporations to avoid income tax on profits earned in U.S. possessions. Corporations operating in Puerto Rico accounted for 99 per cent of this subsidy; the pharmaceutical industry was the biggest beneficiary. Another important program was the percentage depletion provision, which allows mineral extractors to deduct a fixed percentage of their gross mining income from taxable income, with a cap based on current net income. Despite its name, this provision is generally unrelated to capital costs. It is related only to current gross and net income.

Estimates of outlay equivalents for tax expenditure capital subsidies were more than $10 billion. The most generous program was the Expensing Research and Development Expenditures ($3,130 million). This tax expenditure permits a business to deduct in the current year the amount of research and development expenditures incurred in connection with its trade or business. Under a reference tax law, these expenditures would be capitalized and depreciated over 12 years. Two other programs were Industrial Development Bonds ($2,608 million) and Foreign Sales Corporation Export Incentives ($1,428 million).

Tariff and Export Programs

In the category of tariff and export programs (tariff-related programs in the United States), are included performance-based duty remission programs and export grants in Canada and free trade zones and duty remission programs in the United States. Free trade zones and duty remission programs are, in principle, a form of tax expenditure and are assumed to provide a current subsidy. Free trade zones allow importers to postpone the payment of duty while warehousing or re-packaging imports. The wholesale trade industry is the primary beneficiary of the postponed duty subsidy. Free trade zones also enable manufacturers, particularly of automobiles, to take advantage of an inverted tariff structure that affects a relatively small number of commodities.

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[8] The only recent study on this subject is by the Department of Finance, released in August 1985: "Account of the Cost of Selective Tax Measures, Department of Finance, Canada, August 1985." But this report deals only with certain tax expenditures, and the most recent estimates are for 1983.

[9] In this category, we did not consider the deductions for bad debt reserves for commercial financial institutions ($1,110 million in FY 1984), because the Canadian equivalent was not included in the Moroz study.

The second type of non-grant program is duty remission programs. In the United States the federal government remits duty on goods sent abroad and subsequently re-imported into the United States, under section 807 of the tariff code. In Canada, the government operates a number of duty remission programs allowing companies to import goods duty-free in exchange for meeting certain commitments with respect to Canadian production and/or content.

Below-Cost Services

Electricity sales by five federal power marketing administrations in the United States provide some significant sales of goods at below market prices. Other below-cost or free of charge services are available in the United States[10] but they are not included in this study because they do not provide a significant benefit to commercial enterprises or because their Canadian equivalent is not considered a subsidy in the Moroz study. The only service taken into account is subsidized postage, because the postal rate differential for Canadian periodicals and magazines is considered in the Canadian study.[11]

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[10] U.S. Coast Guard Services, Deptartment of Commerce Export Promotion and Trade Development Services, U.S. Army Corps of Engineers navigational activities, the U.S. Geological Survey, the Bureau of Mines, and federal airport and air traffic control expenditures.

[11] Considered as a federal conditional indirect grant benefiting commercial enterprises.

ANNEX 2

REVISION OF THE U.S. ESTIMATED RATE OF SUBSIDY

In the inventory of federal business subsidy programs in the United States we have omitted several programs that could, to some extent, be considered subsidies. This was because the Canadian equivalent of these U.S. programs had not been taken into account in the Canadian study or because commercial enterprises were not direct beneficiaries of these outlays.

To get a complete picture of federal support to business, we believe that these programs should be mentioned along with the recipient industry, the type of subsidy and the subsidy flow during fiscal year 1984.

Cabotage	Industry: Other Transportation & Storage Type of Subsidy: Market Intervention/Current Subsidy FY 1985: $ 1300.0 million.
Deductions for Bad Debt Reserves for Commercial Financial Institutions	Industry: Finance, Insurance & Real Estate. Type of Subsidy: Tax Deduction FY 1984: $ 1110.0 million.
Export Import Bank	Industry: General Type of Subsidy: Loans and Guaranteed Loans. FY 1984: $ 531.0 million.
National Foundation for the Arts and Humanities	Industry: Arts Type of Subsidy: Grants FY 1984: $ 301.5 million.
Federal Airport & Air Traffic Control	Industry: Commercial and General Aviation Type of Subsidy: Below-Cost-Service FY 1984: $ 1090.0 million.
U.S. Coast Guard Services	Industry: Shipping and Fishing Type of Subsidy: Free of Charge Services FY 1984: $ 1030.0 million.

U.S. Army Corps. of Engineers Navigational Activities	Industry: Shipping Type of Subsidy: Free of Charge Services FY 1984: $ 1031.0 million.
Department of Commerce Export Promotion and Trade Dev. Services	Industry: General Type of Subsidy: Free of Charge Services FY 1984: $ 79.5 million.
U.S. Geological Survey	Industry: Oil and Gas Type of Subsidy: Free or Below Cost Services. FY 1984: $ 445.4 million.
Bureau of Mines	Industry: Mining Type of Subsidy: Free or Below Cost Services FY 1984: $ 160.2 million.

The addition of all these programs amounted to $7043.2 million. If we add this figure to the total subsidy flow estimated earlier, this gives an amount of subsidy of $ 35,500.6 million and a subsidy rate of 0.63 per cent. Thus it appears that even under the most generous assumptions, the subsidy rate remains quite low in the United States. Nevertheless, it should be recalled that we have not considered any defence and aerospace spending in our study. During fiscal year 1984, these expenses amounted to $83,780 million dollars:

Government Purchases:	$ 74,950 million
Government Reimbursement:	$ 2,650 million
Grants:[1]	$ 5,130 million
Government Loans:	$ 1,050 million

[1] Including the Energy Research and Development grant ($ 4,930 million).

ANNEX 3

UPDATING OF THE U.S. DATA

Table B1
Current Grant Programs
($ millions)

PROGRAM	AMOUNT FY 1984	FY 1988
Payment for Essential Air Services	40.9	26.2
Operating Differential Subsidies (ODS) for U.S. Shipping Industry	384.2	230.2
Urban Mass Transit Grants	1690.0	2817.5
Amtrak	1119.0	590.0
The Job Training and Partnership Act	3190.0	3700.0
Minority Business Development Agency	50.8	40.3
Fishermen's Contingency Fund Fishing Vessel and Gear Damage Compensation Fund Fishermen's Guaranty Fund[1] Fishery Development and Utilization Funds	11.1	7.4
The Corporation for Public Broadcasting	137.5	214.0
Total	**6623.5**	**7625.6**

Source: Budget of the United States Government, Appendix, Fiscal years 1986, 1990.

Note:

1. This program no longer existed in 1988.

Table B2
Capital Grant Programs
($ millions)

PROGRAM	AMOUNT FY 1984	FY 1988
Airport Improvement Program	694.0	825.2
Maritime Research and Development Grants	10.0	2.6
Construction Differential Subsidies (CDS) for U.S. Shipping Industry	13.7	1.2
The Appalachian Regional Commission	212.1	147.4
The Tennessee Valley Authority	351.1	1088.6
Forestry Incentive Program	10.8	12.4
Total	**1291.7**	**2077.4**

Source: Budget of the United States Government, Appendix, Fiscal years 1986, 1990.

Table B3
Tax Expenditure - Current Subsidy
($ millions)

PROGRAM	Estimate of outlay equivalents for tax expenditure subsidies FY 1984	FY 1988
Possessions Tax Credit	2180.0	2870.0
Targeted Jobs Tax Credit	320.0	215.0
Tax Credit for Fuels from Non Conventional Sources	35.0	15.0
Alcohol Fuels Tax Credits and Related Exemptions to Excise Tax	225.0	10.0
Excess of percentage over cost depletion - Oil and Gas	465.0	120.0
Excess of percentage over cost depletion - Non Fuel Minerals	465.0	305.0
Excess of percentage over cost depletion - Other Fuels	530.0	200.0
Total	**4220.0**	**3735.0**

Source: Special Analysis G, Budget of the United States Government, fiscal years 1986, 1990.

Table B4
Tax Expenditure - Capital Subsidy
($ millions)

PROGRAM	Estimate of outlay equivalents for tax expenditure subsidies FY 1984	FY 1988
The Merchant Marine Capital Construction Fund	40.0	115.0
Industrial Development Bonds	2850.0	5585.0
Export Incentives - The Foreign Sales Corporation	1420.0	730.0
Capital Gains Treatment for Timber	375.0	-
Capital Amortization and Tax Credit for Reforestation Expenses	40.0	40.0
Research and Experimental Tax Credit	3345.0	1220.0
Expensing of Research and Development Expenditures	3190.0	830.0
Total	**11260.0**	**8520.0**

Source: Special Analysis G, Budget of the United States Government, fiscal years 1986, 1990.

Table B5
Loan and Loan Guarantee
($ millions)

PROGRAM	Estimate of outlay equivalents of subsidy flows FY 1984	FY 1989
Small Business Administration	950.0	365.0
Federal Ship Financing Guarantee (Fund)	14.0	0.1
Total	**964.0**	**365.1**

Source: Special Analysis F, Budget of the United States Government, fiscal years 1986, 1989.